

# eMachines eM250 Series Service Guide

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on the ACER/CSD web; for more information,  
please refer to <http://csd.acer.com.tw>

PRINTED IN TAIWAN

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## Revision History

Please refer to the table below for the updates made to this service guide.

Date	Chapter	Updates

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## Conventions

The following conventions are used in this manual:

<b>SCREEN MESSAGES</b>	Denotes actual messages that appear on screen.
<b>NOTE</b>	Gives bits and pieces of additional information related to the current topic.
<b>WARNING</b>	Alerts you to any damage that might result from doing or not doing specific actions.
<b>CAUTION</b>	Gives precautionary measures to avoid possible hardware or software problems.
<b>IMPORTANT</b>	Reminds you to do specific actions relevant to the accomplishment of procedures.

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## Preface

Before using this information and the product it supports, please read the following general information.

1. This Service Guide provides you with all technical information relating to the **BASIC CONFIGURATION** decided for Acer's "global" product offering. To better fit local market requirements and enhance product competitiveness, your regional office **MAY** have decided to extend the functionality of a machine (e.g. add-on card, modem, or extra memory capability). These **LOCALIZED FEATURES** will **NOT** be covered in this generic service guide. In such cases, please contact your regional offices or the responsible personnel/channel to provide you with further technical details.
2. Please note **WHEN ORDERING FRU PARTS**, that you should check the most up-to-date information available on your regional web or channel. If, for whatever reason, a part number change is made, it will not be noted in the printed Service Guide. For **ACER-AUTHORIZED SERVICE PROVIDERS**, your Acer office may have a **DIFFERENT** part number code to those given in the FRU list of this printed Service Guide. You **MUST** use the list provided by your regional Acer office to order FRU parts for repair and service of customer machines.



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# System Specifications

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## Features

Below is a brief summary of the computer's many features:

### Operating System

- Genuine Windows® 7 Starter
- Genuine Windows® 7 Home Basic (China only)
- Genuine Windows® XP Home (Service Pack 3)

### Platform

- Intel® Atom™ processor
- Mobile Intel® 945GSE Express Chipset
- Mobile Intel® 82801GBM Chipset
- Acer InviLink™ 802.11b/g

### System Memory

- Single channel with one soDIMM slot:
  - DDR2 533/667 MHz SDRAM memory interface design
  - soDIMM slot: Supports 512 MB / 1 GB / 2 GB soDIMMs for total system memory of up to 2 GB

### Display and graphics

- 10.1" WSVGA high-brightness (typical 180-nit) Acer CrystalBrite™ TFT LCD, 1024 x 600 pixel resolution
- Mobile Intel® 945GSE Express Chipset

### Storage subsystem

- 2.5" 9.5 mm 160 GB or larger hard disk drive
- Multi-in-1 card reader

### Audio

- High-definition audio support
- Two built-in stereo speakers
- MS-Sound compatible
- Built-in digital microphone

### Dimensions and Weight

- 258.5 (W) x 184 (D) x 25.4 (H) mm

- 
- 1.18 kg (2.62 lbs.) for SKUs with 3-cell battery pack
  - 1.33 kg (2.95 lbs.) for SKUs with 6-cell battery pack

## Communication

- Integrated webcam, supporting 0.3-megapixel resolution
- WLAN: Acer InviLink™ 802.11b/g Wi-Fi CERTIFIED® network connection, supporting Acer SignalUp™ wireless technology
- LAN: 10/100 Mbps Fast Ethernet
- WPAN: Bluetooth® 2.0+EDR
- WWAN: UMTS/HSPA at 2100 MHz and quad-band GSM/GPRS/EDGE (850/900/1800/1900 MHz), or UMTS/HSPA at 850/1900/2100 MHz and quad-band GSM/GPRS/EDGE (850/900/1800/1900 MHz) (for 3G models)

## Privacy control

- BIOS user, supervisor, HDD passwords
- Kensington lock slot

## Special keys and controls

- 84-key keyboard with 1.6 mm (minimum) key travel
- Touchpad pointing device with two buttons

## Power

- 24.4 W 2200 mAh 3-cell Li-ion battery pack, 3-hour battery life
- 48.8 W 4400 mAh 6-cell Li-ion battery pack, 6-hour battery life
- 57.7 W 5200 mAh 6-cell Li-ion battery pack, 7-hour battery life
- 30 W adapter with power cord

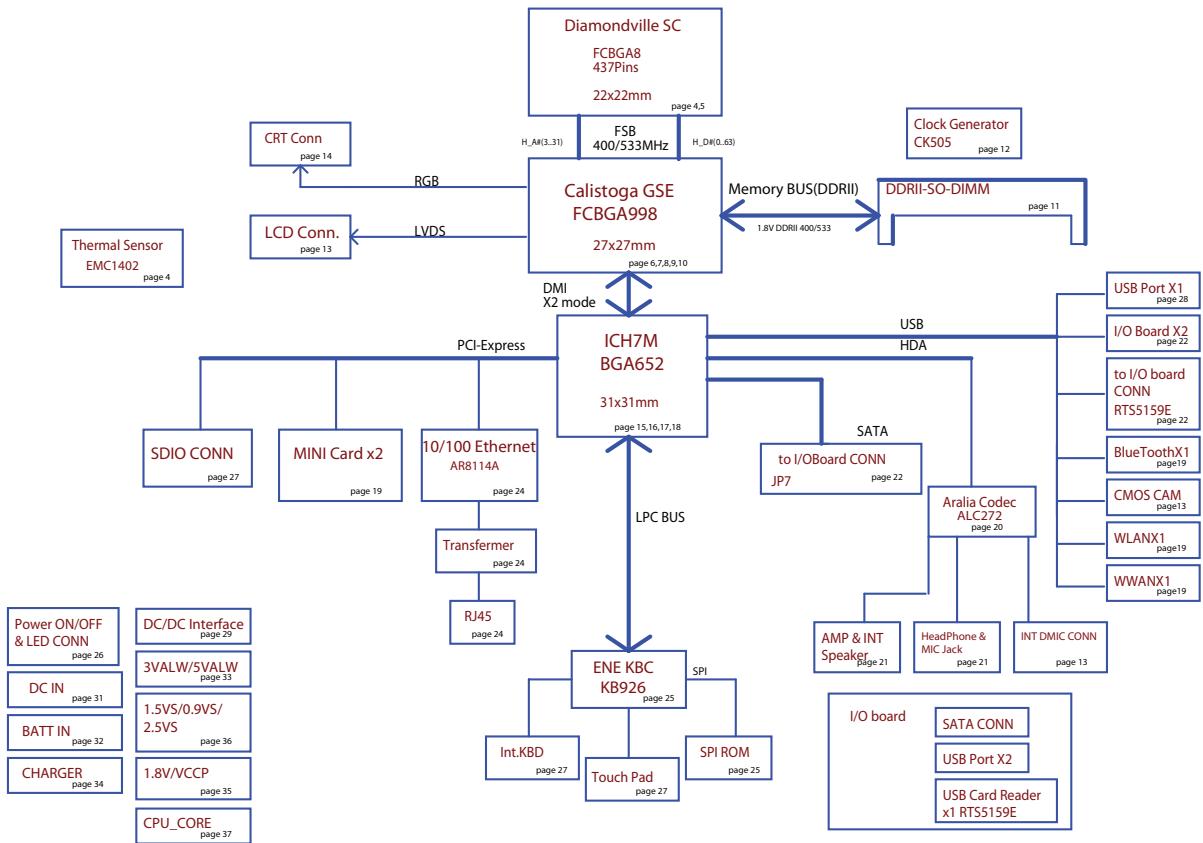
## I/O interface

- Multi-in-1 card reader
- Three USB 2.0 ports
- External display (VGA) port
- Headphone/speaker/line-out jack
- Microphone-in jack
- Ethernet (RJ-45) port
- DC-in jack for AC adapter

## Environment

- Temperature:
  - Operating: 5 °C to 35 °C
  - Non-operating: -20 °C to 65 °C
- Humidity (non-condensing):
  - Operating: 20% to 80%
  - Non-operating: 20% to 80%

# System Block Diagram



# Your eMachines Notebook tour

## Front View



No.	Icon	Item	Description
1		Webcam	Web camera for video communication
2	Microphone icon	Microphone	Internal microphone for sound recording.
3	Display screen icon	Display screen	Also called Liquid-Crystal Display (LCD), displays computer output.
4	Bluetooth icon	Bluetooth communication switch/indicator	Enables/disables the Bluetooth function. Indicates the status of Bluetooth communication. (only for certain models)
5		Status indicators	Light-Emitting Diodes (LED) that light up to show the status of the computer's functions and components.
6		Keyboard	For entering data into your computer.
7		TouchPad	Touch-sensitive pointing device which functions like a computer mouse.
8		Power indicator	Indicates the computer's power status.

No.	Icon	Item	Description
9		Click buttons (left and right)	The left and right buttons function like the left and right mouse buttons.
10		Wireless LAN/3G communication indicator	Indicates the status of Wireless LAN/3G communication. (only for certain models)
11		Power button/indicator	Turns the computer on and off.

## Closed Front View



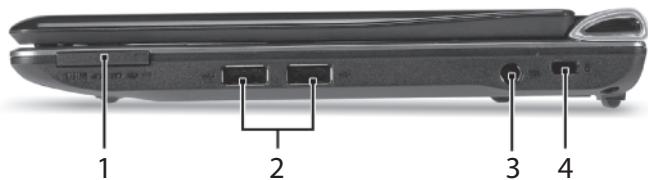
No.	Icon	Item	Description
1		Wireless communication switch	Enables/disables the wireless function.

## Left View



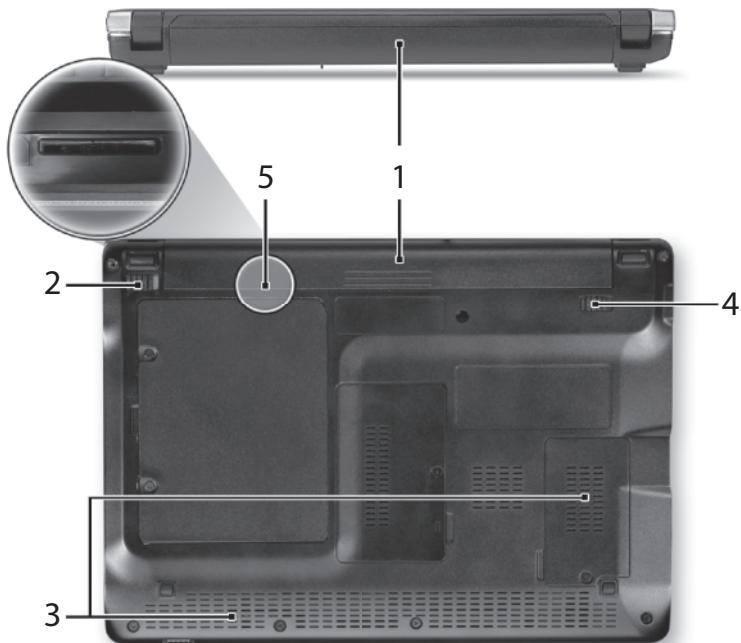
No.	Icon	Item	Description
1		Ethernet (RJ-45) port	Connects to an Ethernet 10/100-based network.
2		Ventilation slots and cooling fan	Enable the computer to stay cool, even after prolonged use. <b>Note:</b> Do not cover or obstruct the fan opening.
3		External display (VGA) port	Connects to a display device (e.g. external monitor, projector).
4		USB 2.0 port	Connect to USB 2.0 devices (e.g. USB mouse).
6		Microphone-in jack	Accepts input from external microphones.
5		Headphones/speaker/line-out jack	Connects to line-out audio devices (e.g. speakers, headphones).

## Right View



No.	Icon	Item	Description
1		Multi-in-1 card reader	Accepts Secure Digital (SD), MultiMediaCard (MMC), Memory Stick (MS), Memory Stick PRO (MS PRO), xD-Picture Card (xD). Note: Push to remove/install the card. Only one card can operate at any given time.
2		USB 2.0 ports	Connect to USB 2.0 devices (e.g. USB mouse).
3		DC-in jack	Connects to an AC adapter
4		Kensington lock slot	Connects to a Kensington-compatible computer security lock.

## Rear and Base View



No.	Icon	Item	Description
1		Battery bay	Houses the computer's battery pack. <b>Note:</b> The battery shown is for reference only. Your PC may have a different battery, depending on the model purchased.

No.	Icon	Item	Description
2		Battery lock	Locks the battery in position.
3		Ventilation slots	Vents enable the computer to stay cool, even after prolonged use. <b>Note:</b> Do not cover or obstruct the cooling vents.
4		Battery release latch	Releases the battery for removal.
5		3G SIM card slot	Accepts a 3G SIM card for 3G connectivity (only for certain models).

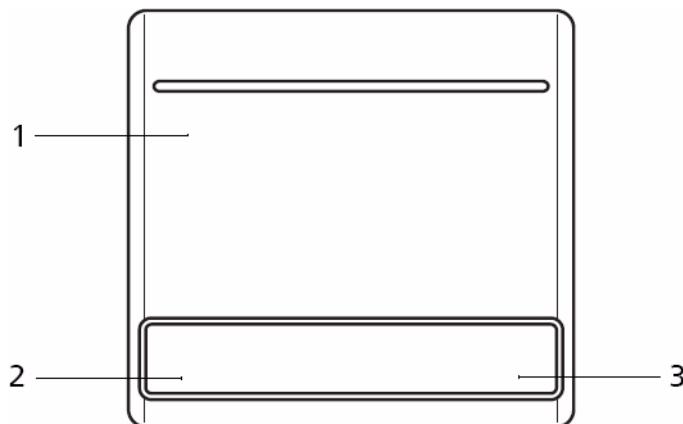
## Indicators

The computer has several easy-to-read status indicators. The battery indicator is visible even when the computer cover is closed.

Icon	Function	Description
	Bluetooth	Indicates the status of Bluetooth communication.
	Wireless LAN	Indicates the status of Wireless LAN communication.
	3G communication	Indicates the status of 3G communication.
	HDD	Indicates when the hard disk drive is active.
	Num Lock	Lights up when Num Lock is activated.
	Caps Lock	Lights up when Caps Lock is activated.
	Battery	Indicates the computer's battery status.

# TouchPad Basics

The following items show you how to use the TouchPad:



- Move your finger across the TouchPad (1) to move the cursor.
- Press the left (2) and right (3) buttons located beneath the TouchPad to perform selection and execution functions. These two buttons are similar to the left and right buttons on a mouse. Tapping on the TouchPad is the same as clicking the left button.

Function	Left Button (2)	Right Button (3)	Main TouchPad (1)
Execute	Quickly click twice.		Tap twice (at the same speed as double-clicking a mouse button).
Select	Click once.		Tap once.
Drag	Click and hold, then use finger on the TouchPad to drag the cursor.		Tap twice (at the same speed as double-clicking a mouse button); rest your finger on the TouchPad on the second tap and drag the cursor.
Access context menu		Click once.	

**NOTE:** When using the TouchPad, keep it - and your fingers - dry and clean. The TouchPad is sensitive to finger movement; hence, the lighter the touch, the better the response. Tapping too hard will not increase the TouchPad's responsiveness.

# Using the Keyboard

Your eMachines eM250 has a close-to-full-sized keyboard and an embedded numeric keypad, separate cursor, lock, function and special keys.



## Lock Keys and embedded numeric keypad

The keyboard has three lock keys which you can toggle on and off.

Lock key	Description
Caps Lock	When Caps Lock is on, all alphabetic characters typed are in uppercase.
Num Lock <b>&lt;Fn&gt; + &lt;F11&gt;</b>	When Num Lock is on, the embedded keypad is in numeric mode. The keys function as a calculator (complete with the arithmetic operators +, -, *, and /). Use this mode when you need to do a lot of numeric data entry. A better solution would be to connect an external keypad.
Scroll Lock <b>&lt;Fn&gt; + &lt;F12&gt;</b>	When Scroll Lock is on, the screen moves one line up or down when you press the up or down arrow keys respectively. Scroll Lock does not work with some applications.

The embedded numeric keypad functions like a desktop numeric keypad. It is indicated by small characters located on the upper right corner of the keycaps. To simplify the keyboard legend, cursor-control key symbols are not printed on the keys.

Desired access	Num Lock on	Num Lock off
Number keys on embedded keypad	Type numbers in a normal manner.	
Cursor-control keys on embedded keypad	Hold <Shift> while using cursor-control keys.	Hold <Fn> while using cursor-control keys.
Main keyboard keys	Hold <Fn> while typing letters on embedded keypad.	Type the letters in a normal manner.

# Windows Keys

The keyboard has two keys that perform Windows-specific functions.

Key	Description
 Windows key	<p>Pressed alone, this key has the same effect as clicking on the Windows Start button; it launches the Start menu. It can also be used with other keys to provide a variety of functions:</p> <ul style="list-style-type: none"><li>&lt; &gt;: Open or close the Start menu</li><li>&lt; &gt; + &lt;D&gt;: Display the desktop</li><li>&lt; &gt; + &lt;E&gt;: Open Windows Explore</li><li>&lt; &gt; + &lt;F&gt;: Search for a file or folder</li><li>&lt; &gt; + &lt;L&gt;: Lock your computer (if you are connected to a network domain), or switch users (if you're not connected to a network domain)</li><li>&lt; &gt; + &lt;M&gt;: Minimizes all windows</li><li>&lt; &gt; + &lt;R&gt;: Open the Run dialog box</li><li>&lt; &gt; + &lt;U&gt;: Open Ease of Access Center</li><li>&lt; &gt; + &lt;BREAK&gt;: Display the System Properties dialog box</li><li>&lt; &gt; + &lt;SHIFT+M&gt;: Restore minimized windows to the desktop</li><li>&lt; &gt; + &lt;TAB&gt;: Cycle through programs on the taskbar by using Windows Flip 3-D</li><li>&lt; &gt; + &lt;SPACEBAR&gt;: Bring all gadgets to the front and select Windows Sidebar</li><li>&lt;CTRL&gt; + &lt; &gt; + &lt;F&gt;: Search for computers (if you are on a network)</li><li>&lt;CTRL&gt; + &lt; &gt; + &lt;TAB&gt;: Use the arrow keys to cycle through programs on the taskbar by using Windows Flip 3-D</li></ul> <p><b>Note:</b> Depending on your edition of Windows Vista, some shortcuts may not function as described.</p>
 Application key	This key has the same effect as clicking the right mouse button; it opens the application's context menu.

## Hot Keys

The computer employs hotkeys or key combinations to access most of the computer's controls like screen brightness and volume output.

To activate hotkeys, press and hold the **<Fn>** key before pressing the other key in the hotkey combination.

Hotkey	Icon	Function	Description
<b>&lt;Fn&gt; + &lt;F1&gt;</b>	?	Hotkey help	Displays help on hotkeys.
<b>&lt;Fn&gt; + &lt;F2&gt;</b>		Acer eSettings Management	Launches Acer eSettings Management in Acer Empowering Technology.
<b>&lt;Fn&gt; + &lt;F3&gt;</b>		Acer ePower Management	Launches Acer ePower Management in Acer Empowering Technology.
<b>&lt;Fn&gt; + &lt;F4&gt;</b>		Sleep	Puts the computer in Sleep mode.
<b>&lt;Fn&gt; + &lt;F5&gt;</b>		Display toggle	Switches display output between the display screen, external monitor (if connected) and both.
<b>&lt;Fn&gt; + &lt;F6&gt;</b>		Screen blank	Turns the display screen backlight off to save power. Press any key to return.
<b>&lt;Fn&gt; + &lt;F7&gt;</b>		TouchPad toggle	Turns the internal TouchPad on and off.
<b>&lt;Fn&gt; + &lt;F8&gt;</b>		Speaker toggle	Turns the speakers on and off.
<b>&lt;Fn&gt; + &lt;&gt;&gt;</b>		Brightness up	Increases the screen brightness.
<b>&lt;Fn&gt; + &lt;&lt;&gt;</b>		Brightness down	Decreases the screen brightness.
<b>&lt;Fn&gt; + &lt;△&gt;</b>		Volume up	Increases the sound volume.
<b>&lt;Fn&gt; + &lt;▽&gt;</b>		Volume down	Decreases the sound volume.

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## Special Keys

You can locate the Euro symbol and the US dollar sign at the upper-center and/or bottom-right of your keyboard.

### The Euro symbol

1. Open a text editor or word processor.
2. Hold **<Alt Gr>** and then press the **<5>** key at the upper-center of the keyboard.

**NOTE:** Some fonts and software do not support the Euro symbol. See [www.microsoft.com/typography/faq/faq12.htm](http://www.microsoft.com/typography/faq/faq12.htm) for more information.

### The US dollar sign

1. Open a text editor or word processor.
2. Hold **<Shift>** and then press the **<4>** key at the upper-center of the keyboard.

**NOTE:** This function varies according to the language settings.

# Hardware Specifications and Configurations

## Processor

Item	Specification
CPU type	Intel Atom N270/N280, 1.6GHz, 512K, 533/667MHz, 2.5W
CPU package	Micro-FCBGA8 packaging, 437-pin
Core Logic	<ul style="list-style-type: none"> <li>Intel 945GSE Express chipset</li> <li>ICH7M Intel 82801GBM</li> </ul>
Chipset	<ul style="list-style-type: none"> <li>ENE KB926 for Keyboard Controller, Battery management Unit, and RTC.</li> <li>Integrated VGA solution for Intel 945GSE.</li> <li>Realtek ALC272X-GR for High Definition Audio Codec.</li> <li>Atheros AR8114A/AR8132 for 10/100 LAN</li> </ul>
Features	<ul style="list-style-type: none"> <li>On-die, primary 32-kB instructions cache and 24-kB write-back data cache</li> <li>533-MHz source-synchronous front side bus (FSB)</li> <li>2-Threads support</li> <li>On-die 512-kB, 8-way L2 cache</li> <li>Support for IA 32-bit architecture</li> <li>Intel® Streaming SIMD Extensions-2 and -3 (Intel® SSE2 and Intel® SSE3) support and Supplemental Streaming SIMD Extension 3 (SSSE3) support</li> <li>Micro-FCBGA8 packaging technologies</li> <li>Thermal management support via Intel® Thermal Monitor 1 and Intel Thermal Monitor 2</li> <li>FSB Lane Reversal for flexible routing</li> <li>Supports C0/C1(e)/C2(e)/C4(e)</li> <li>L2 Dynamic Cache Sizing</li> <li>Advanced power management features including Enhanced Intel SpeedStep® Technology</li> <li>Execute Disable Bit support for enhanced security</li> </ul>

## Processor Specifications

Item	CPU Speed	Cores	Bus Speed	Mfg Tech	Cache Size	Package	Core Voltage	Acer P/N
N270	1.6 GHz	1	533 MHz	45 nm	512 KB	Micro-FCBGA8	0.9V-1.100V	KC.ANB01.270
N280	1.66 GHz	1	667 MHz	45 nm	512 KB	Micro-FCBGA8	0.9V-1.1625V	KC.ANB01.280

## CPU Fan True Value Table

CPU Temperature of Diode	Fan Speed (RPM)	SPL Spec (dBA)
40	5200	26
50	5900	29
60	6300	31

- Throttling 50%: On= 85°C; OFF=75°C
- EC shut down at 90°C; H/W shut down(PH1) at 92°C

### System Memory

Item	Specification
Memory controller	Built in
Memory size	512MB or 1GB DDR2 RAM (if 2Gb die support is available)
DIMM socket number	1
Supports memory size per socket	2 GB
Supports maximum memory size	2 GB
Supports DIMM type	DDR II 533Mhz SDRAM memory interface design
Supports DIMM Speed	533Mhz SDRAM

### System Storage

Item	Specification
HDD	<ul style="list-style-type: none"> <li>• 9.5mm height, 2.5" HDD</li> <li>• Easily removable no more than two screws</li> <li>• SATA bus</li> <li>• 160/250GB and above</li> <li>• 5400 rpm</li> <li>• SATA connector BTO</li> </ul>

### Hard Disk Drive Interface

Item	Specification				
Vendor & Model Name	Seagate ST9160310AS	Seagate ST9250827AS	Seagate ST9250315AS	HGST L9A300 HTS543225 HTS543216	WD WD2500BEVT WD1600BEVT
Capacity (GB)	160	250	250	250, 160	250, 160
Bytes per sector	512	512	512	512	512
Data heads	2	4	2	3, 2	3, 2
Drive Format					
Disks	1	2	1	2, 1	2, 1
Spindle speed (RPM)	5400	5400	5400	5400	5400
Performance Specifications					
Buffer size	8 MB	8 MB	TBD	8 MB	8 MB
Interface	SATA	SATA	SATA	SATA	SATA
Fast data transfer rate (Mbits/sec, max)	352	778	TBD	3000	3000
Media data transfer rate (Mbytes/sec max)	150	300	TBD	775	850
DC Power Requirements					
Voltage tolerance	5V ±5%	5V ±5%	TBD	5V ±5%	5V ±5%

### Hard Disk Drive Interface (cont.)

Item	Specification	
Vendor & Model Name	Toshiba MK1652GSX	Toshiba MK1655GSX
Capacity (GB)	160	160
Bytes per sector		512
Data heads	2	2
Drive Format		
Disks	1	1
Spindle speed (RPM)	5400	5400
Performance Specifications		
Buffer size (MB)	8	8
Interface	SATA	SATA
Fast data transfer rate (Mbits/sec, max)	400 - 794 typical	395 - 952 typical
Media data transfer rate (Gbytes/sec max)	3	3
DC Power Requirements		
Voltage tolerance	5V ±5%	5V ±5%

### BIOS

Item	Specification
BIOS vendor	InSyde
BIOS Version	v0.10
BIOS ROM type	Flash
BIOS ROM size	1 MB
Features	<ul style="list-style-type: none"> <li>• Support ISIPP</li> <li>• Support Acer UI</li> <li>• Support multi-boot</li> <li>• Suspend to RAM (S3)/Disk (S4)</li> <li>• Various hot-keys for system control</li> <li>• Support SMBUS 2.0, PCI2.3</li> <li>• ACPI 2.0 compliance with Intel Speed Step Support C1, C2, C3, C4 and S3, S4 for mobile CPU</li> <li>• DMI utility for BIOS serial number configurable/asset tag</li> <li>• Support PXE</li> <li>• Support Y2K solution</li> <li>• Support Win Flash Wake on LAN from S3</li> <li>• Wake on LAN from S4 in AC mode</li> <li>• System information</li> </ul>

### LED 10.1"

Item	Specification
Vendor/model name	Chimei N101L6-L02, AUO B101AW03 V0, Samsung LTN101NT02-A01, LPL LP101WSA-TLA1
Screen Diagonal (mm)	257 (10.1")
Active Area (mm)	222.72x125.28
Display resolution (pixels)	1024x576

Item	Specification
Pixel Pitch (mm)	0.2175
Typical White Luminance (cd/m <sup>2</sup> ) also called Brightness	200
Contrast Ratio	500:1
Response Time (Optical Rise Time/Fall Time) msec	10
Typical Power Consumption (watt)	2.5
Weight (without inverter)	180
Physical Size (mm)	235.5 x 143.5 x 5.2
Electrical Interface	LVDS
Viewing Angle (degree) Horizontal (Right) CR = 10 (Left) Vertical (Upper) CR = 10 (Lower)	45/45 20/45

#### Audio Codec and Amplifier

Item	Specification
Audio Controller	REALTEK ALC272X-GR
Features	<ul style="list-style-type: none"> <li>• Two stereo DAC support 16/20/24-bit PCM for two independent playback (multiple streaming)</li> <li>• Two stereo ADC supports 16/20/24-bit PCM format for two independent recording</li> <li>• All DACs support independent 44.1k/48k/96k/192kHz sample rate</li> <li>• All ADCs support independent 44.1k/48k/96k/192kHz sample rate</li> <li>• Two independent SPDIF outputs support 16/20/24-bit format and 44.1k/48k/88.2k/96k/192kHz rate</li> <li>• Supports line level mono output</li> <li>• Supports analog PCBEEP input, and features an integrated digital BEEP generator</li> <li>• Support two stereo digital microphone input for microphone array AEC/BF application</li> <li>• Supports legacy analog mixer architecture</li> <li>• Supports two GPIO (General Purpose Input/Output) pins (pin sharing with digital microphone interface)</li> <li>• Supports EAPD (External Amplifier Power Down) control for external amplifier</li> <li>• Supports anti-pop mode when analog power AVDD is on and digital power is off</li> <li>• Supports 1.5V~3.3V scalable I/O for HD Audio link</li> <li>• 48-pin LQFP 'Green' package</li> </ul>

#### LAN Interface

Item	Specification
LAN Chipset	Atheros AR8114/AR8132
Features	<ul style="list-style-type: none"> <li>• Supports 10/100</li> </ul>

#### Keyboard

Item	Specification
Type	New Acer flat keyboard
Total number of keypads	84/88 with 101/102 key emulation
Windows logo key	Yes

Item	Specification
Internal & external keyboard work simultaneously	Plug USB keyboard to the USB port directly: Yes
Features	<ul style="list-style-type: none"> <li>• 2.0+/- 3mm full stroke keys</li> <li>• Phantom key auto detect</li> <li>• Overlay numeric keypad</li> <li>• Support independent pgdn/pgup/pgup/home/end keys</li> <li>• Support reverse T cursor keys</li> <li>• Factory configurable different languages by OEM customer</li> </ul>

#### Mini Card

Item	Specification
Number Supported	2
Features	<ul style="list-style-type: none"> <li>• 2 mini card slot (1 for 3G and 1 for WLAN or WLAN/WiMax)</li> <li>• Embedded 3G module and built-in 1 antenna (combo wireless + 3G) on top/side of LCD</li> </ul>

#### Camera

Item	Specification
Vendor and model	Suyin Camera Rosa Liteon Camera Lily
Type	0.3M LDV

#### 3G Card

Item	Specification
Features	<ul style="list-style-type: none"> <li>• 3G card in mini-PCI card size</li> <li>• Control by USB interface</li> <li>• User accessible SIM card by battery remove</li> <li>• Antenna: Has to be placed on the sides of LCD in A/B cover</li> </ul>

#### Wireless LAN

Item	Specification
Type	WiMax Intel Echo Peak 5150
Features	<ul style="list-style-type: none"> <li>• 802.16e+802.11a/g/h</li> <li>• 1x2 MIMO</li> <li>• Mini card/Half Mini card</li> </ul>

#### Battery

Item	Specification	
Vendor & model name	SANYO UM-2008A, PANASONIC UM-2008AW, SIMPLIO UM-2008A	SANYO UM-2008BW, PANASONIC UM-2008B, SIMPLIO UM-2008A
Battery Type	Li-ion	Li-ion
Pack capacity	2200/2900 mAh	4400/5800 mAh
Number of battery cell	3	6
Package configuration	3S1P	3S2P



# System Utilities

---

## BIOS Setup Utility

The BIOS Setup Utility is a hardware configuration program built into your computer's BIOS (Basic Input/Output System).

Your computer is already properly configured and optimized, and you do not need to run this utility. However, if you encounter configuration problems, you may need to run Setup. Please also refer to Chapter 4 Troubleshooting when problem arises.

To activate the BIOS Utility, press **F2** during POST (when **Press <F2> to enter Setup** message is prompted on the bottom of screen).

Press **F2** to enter setup. The default parameter of F12 Boot Menu is set to "disabled". If you want to change boot device without entering BIOS Setup Utility, please set the parameter to "enabled".

Press **<F12>** during POST to enter multi-boot menu. In this menu, user can change boot device without entering BIOS SETUP Utility.

## Navigating the BIOS Utility

There are six menu options: Information, Main, Advanced, Security, Power, Boot, and Exit.

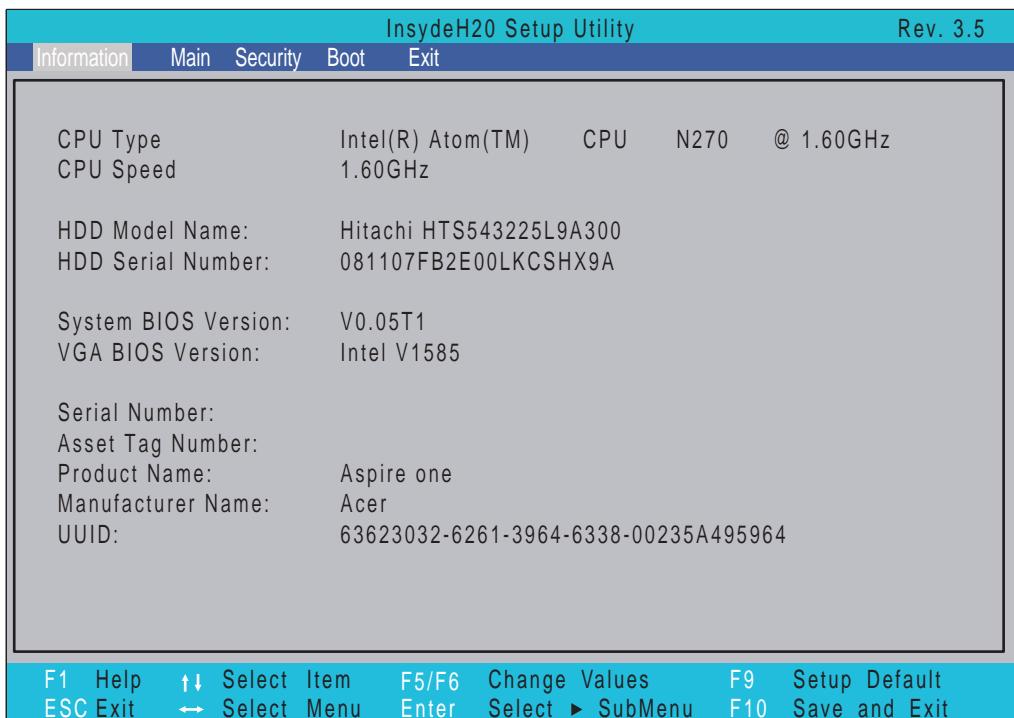
Follow these instructions:

- To choose a menu, use the left and right arrow keys.
- To choose an item, use the up and down arrow keys.
- To change the value of a parameter, press **F5** or **F6**.
- A plus sign (+) indicates the item has sub-items. Press **Enter** to expand this item.
- Press **Esc** while you are in any of the menu options to go to the Exit menu.
- In any menu, you can load default settings by pressing **F9**. You can also press **F10** to save any changes made and exit the BIOS Setup Utility.

**NOTE:** You can change the value of a parameter if it is enclosed in square brackets. Navigation keys for a particular menu are shown on the bottom of the screen. Help for parameters are found in the Item Specific Help part of the screen. Read this carefully when making changes to parameter values. **Please note that system information is subject to different models.**

# Information

The Information screen displays a summary of your computer hardware information.

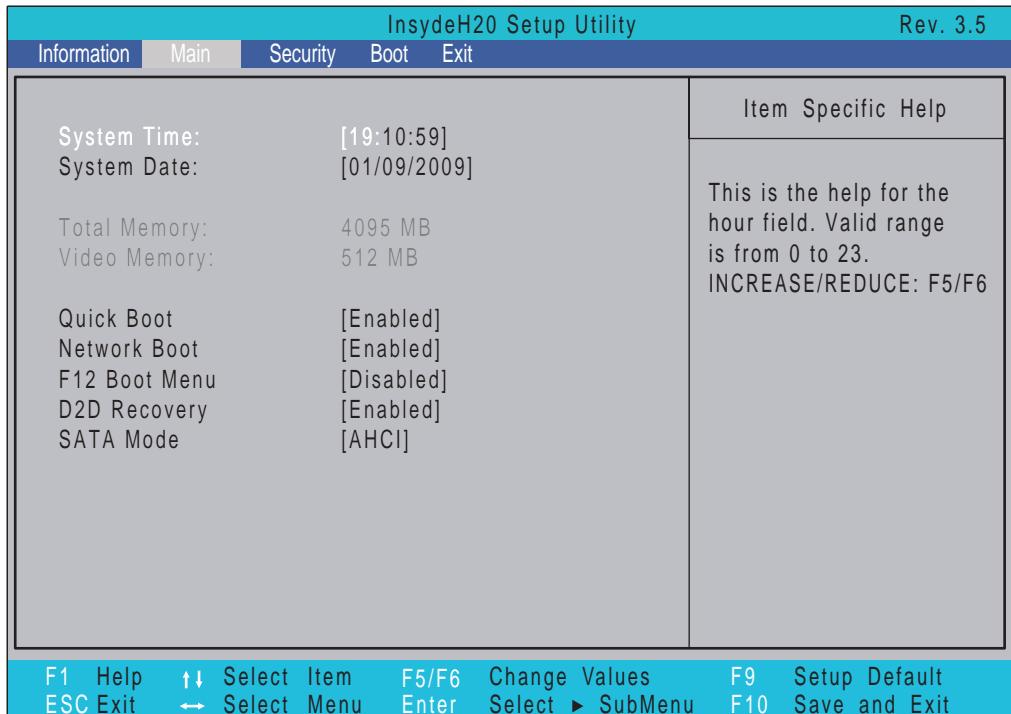


**NOTE:** The system information is subject to different models.

Parameter	Description
CPU Type	This field shows the CPU type and speed of the system.
CPU Speed	This field shows the speed of the CPU.
HDD Model Name	This field shows the model name of HDD installed on primary IDE master.
HDD Serial Number	This field displays the serial number of HDD installed on primary IDE master.
System BIOS Version	Displays system BIOS version.
VGA BIOS Version	This field displays the VGA firmware version of the system.
Serial Number	This field displays the serial number of this unit.
Asset Tag Number	This field displays the asset tag number of the system.
Product Name	This field shows product name of the system.
Manufacturer Name	This field displays the manufacturer of this system.
UUID	Universally Unique Identifier (UUID) is an identifier standard used in software construction, standardized by the Open Software Foundation (OSF) as part of the Distributed Computing Environment (DCE).

## Main

The Main screen allows the user to set the system time and date as well as enable and disable boot option and recovery.



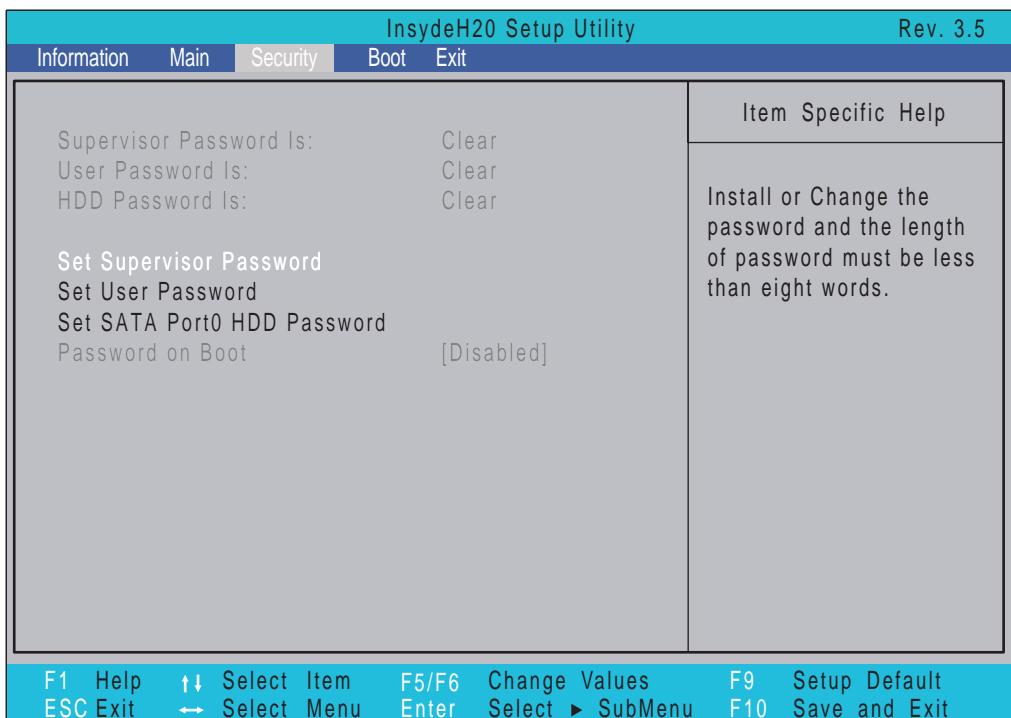
**NOTE:** The screen above is for your reference only. Actual values may differ.

The table below describes the parameters in this screen. Settings in **boldface** are the default and suggested parameter settings.

Parameter	Description	Format/Option
System Time	Sets the system time. The hours are displayed with 24-hour format.	Format: HH:MM:SS (hour:minute:second)
System Date	Sets the system date.	Format MM/DD/YYYY (month/day/year)
Total Memory	This field reports the memory size of the system. Memory size is fixed to 3017 MB.	N/A
Video Memory	Shows the video memory size. VGA Memory size=32 MB	N/A
Quick Boot	Allows startup to skip certain tests while booting, decreasing the time needed to boot the system.	Option: <b>Enabled</b> or Disabled
Network Boot	Enables, disables the system boot from LAN (remote server).	Option: <b>Enabled</b> or Disabled
F12 Boot Menu	Enables, disables Boot Menu during POST.	Option: <b>Enabled</b> or Enabled
D2D Recovery	Enables, disables D2D Recovery function. The function allows the user to create a hidden partition on hard disc drive to store operation system and restore the system to factory defaults.	Option: <b>Enabled</b> or Disabled
SATA Mode	Control the mode in which the SATA controller should operate.	Option: <b>AHCI</b> or IDE

# Security

The Security screen contains parameters that help safeguard and protect your computer from unauthorized use.



The table below describes the parameters in this screen. Settings in **boldface** are the default and suggested parameter settings.

Parameter	Description	Option
Supervisor Password Is	Shows the setting of the Supervisor password	<b>Clear or Set</b>
User Password Is	Shows the setting of the user password.	<b>Clear or Set</b>
HDD Password IS	Shows the setting of the HDD password	<b>Clear or Set</b>
Set Supervisor Password	Press Enter to set the supervisor password. When set, this password protects the BIOS Setup Utility from unauthorized access. The user can not either enter the Setup menu nor change the value of parameters.	
Set User Password	Press Enter to set the user password. When user password is set, this password protects the BIOS Setup Utility from unauthorized access. The user can enter Setup menu only and does not have right to change the value of parameters.	
Set Hdd Password	Enter HDD password.	
Password on Boot	Defines whether a password is required or not while the events defined in this group happened. The following sub-options are all requires the Supervisor password for changes and should be grayed out if the user password was used to enter setup.	<b>Enabled or Disabled</b>

**NOTE:** When you are prompted to enter a password, you have three tries before the system halts. Don't forget your password. If you forget your password, you may have to return your notebook computer to your dealer to reset it.

---

## Setting a Password

Follow these steps as you set the user or the supervisor password:

1. Use the ↑ and ↓ keys to highlight the Set Supervisor Password parameter and press the **Enter** key. The Set Supervisor Password box appears:



2. Type a password in the "Enter New Password" field. The password length can not exceed 8 alphanumeric characters (A-Z, a-z, 0-9, not case sensitive). Retype the password in the "Confirm New Password" field.

**IMPORTANT:** Be very careful when typing your password because the characters do not appear on the screen.

3. Press **Enter**. After setting the password, the computer sets the User Password parameter to "Set".
4. If desired, you can opt to enable the Password on boot parameter.
5. When you are done, press F10 to save the changes and exit the BIOS Setup Utility.

## Removing a Password

Follow these steps:

1. Use the ↑ and ↓ keys to highlight the Set Supervisor Password parameter and press the **Enter** key. The Set Password box appears:



2. Type the current password in the Enter Current Password field and press **Enter**.
3. Press **Enter** twice **without** typing anything in the Enter New Password and Confirm New Password fields. The computer then sets the Supervisor Password parameter to "Clear".
4. When you have changed the settings, press **u** to save the changes and exit the BIOS Setup Utility.

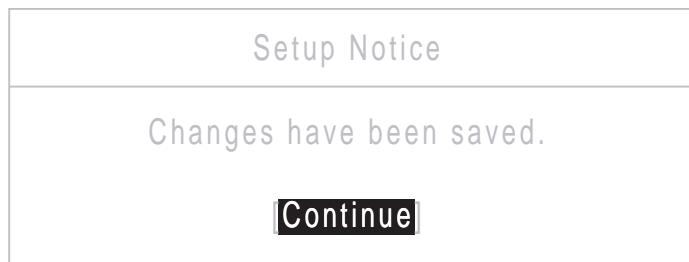
## Changing a Password

1. Use the ↑ and ↓ keys to highlight the Set Supervisor Password parameter and press the **Enter** key. The Set Password box appears.



2. Type the current password in the Enter Current Password field and press **Enter**.
3. Type a password in the Enter New Password field. Retype the password in the Confirm New Password field.
4. Press **Enter**. After setting the password, the computer sets the User Password parameter to "Set".
5. If desired, you can enable the Password on boot parameter.
6. When you are done, press **F10** to save the changes and exit the BIOS Setup Utility.

If the verification is OK, the screen will display as following.



The password setting is complete after the user presses **Enter**.

If the current password entered does not match the actual current password, the screen will show you the Setup Warning.

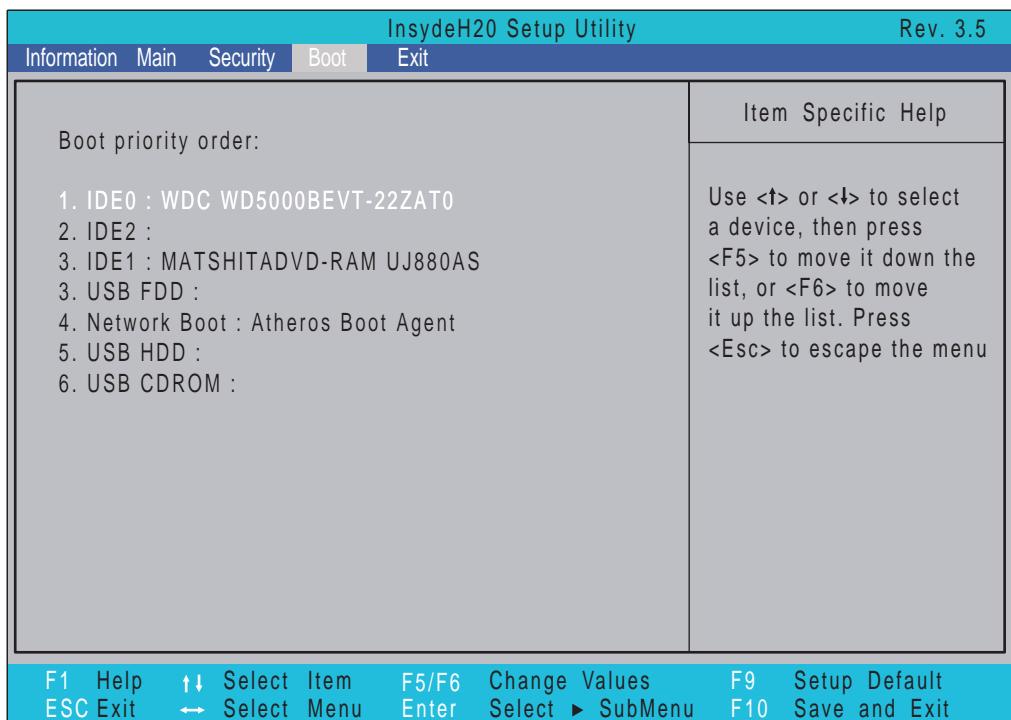


If the new password and confirm new password strings do not match, the screen displays the following message.



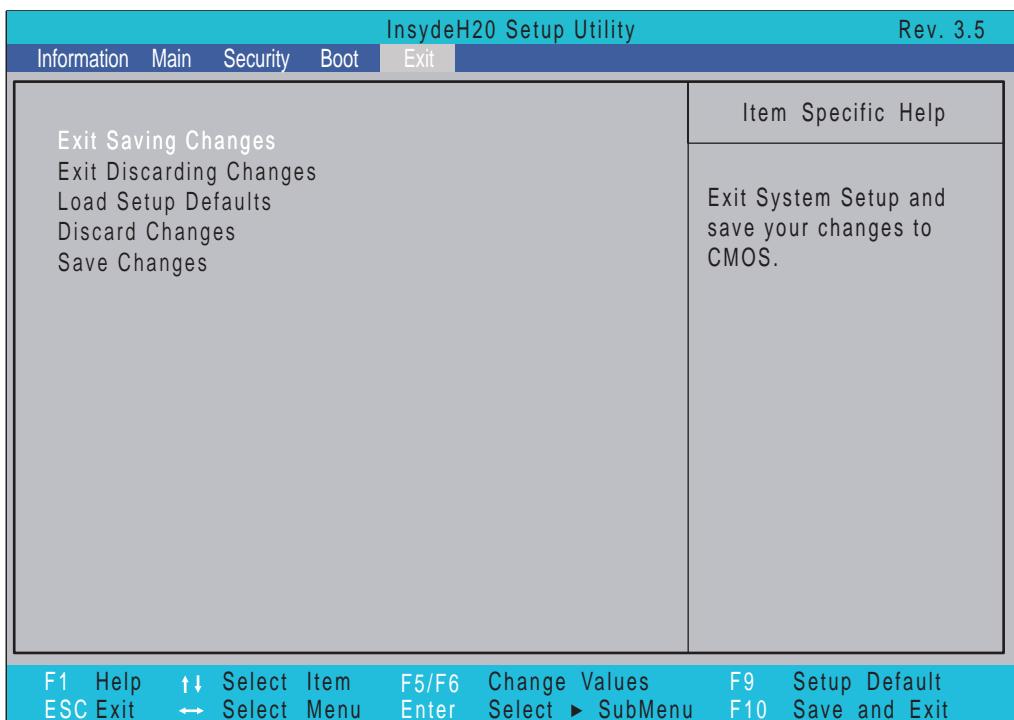
## Boot

This menu allows the user to decide the order of boot devices to load the operating system. Bootable devices includes the USB diskette drives, the onboard hard disk drive and the DVD drive in the module bay.



## Exit

The Exit screen allows you to save or discard any changes you made and quit the BIOS Utility.



The table below describes the parameters in this screen.

Parameter	Description
Exit Saving Changes	Exit System Setup and save your changes to CMOS.
Exit Discarding Changes	Exit utility without saving setup data to CMOS.
Load Setup Default	Load default values for all SETUP item.
Discard Changes	Load previous values from CMOS for all SETUP items.
Save Changes	Save Setup Data to CMOS.

---

# BIOS Flash Utility

The BIOS flash memory update is required for the following conditions:

- New versions of system programs
- New features or options
- Restore a BIOS when it becomes corrupted.

Use the Phlash utility to update the system BIOS flash ROM.

**NOTE:** If you do not have a crisis recovery diskette at hand, then you should create a **Crisis Recovery Diskette** before you use the Phlash utility.

**NOTE:** Do not install memory-related drivers (XMS, EMS, DPMI) when you use the Phlash.

**NOTE:** Please use the AC adaptor power supply when you run the Phlash utility. If the battery pack does not contain enough power to finish BIOS flash, you may not boot the system because the BIOS is not completely loaded.

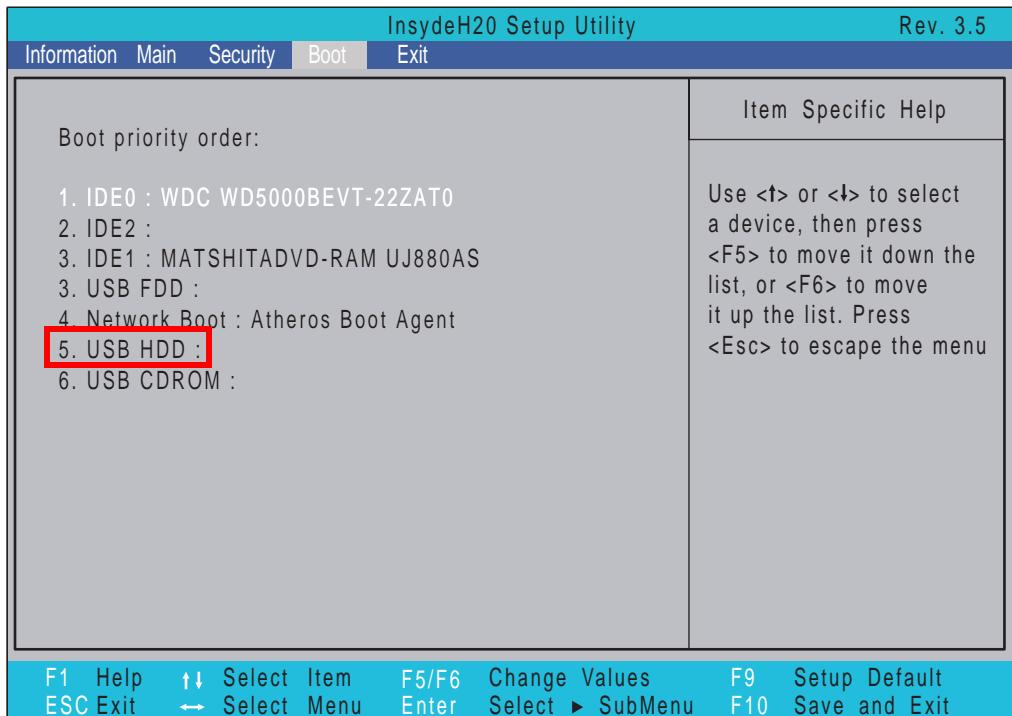
Fellow the steps below to run the Phlash.

1. Prepare a bootable diskette.
2. Copy the flash utilities to the bootable diskette.
3. Then boot the system from the bootable diskette. The flash utility has auto-execution function.

# DOS Flash Utility

Perform the following steps to use the DOS Flash Utility:

1. Press F2 during boot to enter the Setup Menu.
2. Select **Boot Menu** to modify the boot priority order, for example, if using USB HDD to Update BIOS, move USB HDD to position 1.



3. Execute the **IFLASH.BAT** batch file to update BIOS.

The flash process begins as shown.



4. In flash BIOS, the message **Please do not remove AC Power Source** displays.

---

**NOTE:** If the AC power is not connected, the following message displays.



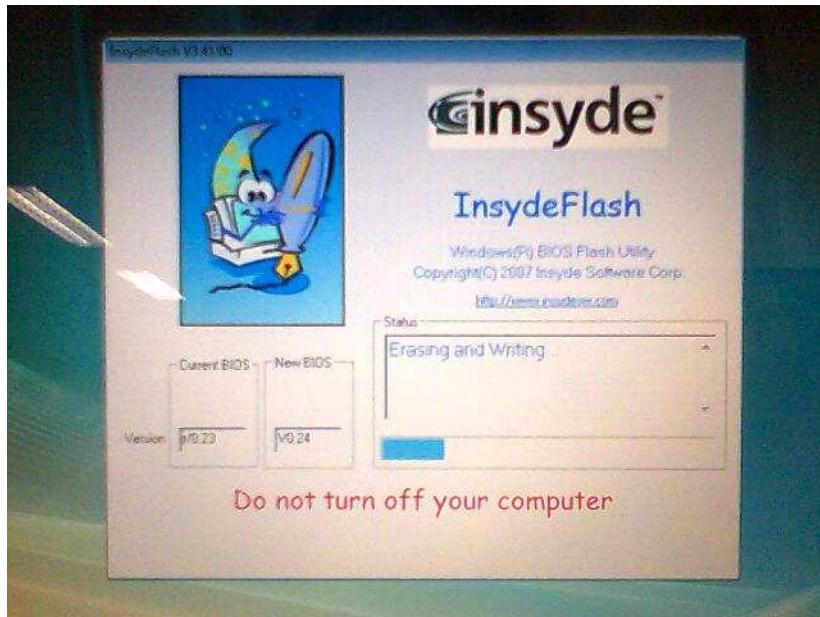
Plug in the AC power to continue.

5. Flash is complete when the message Flash programming complete displays.

## WinFlash Utility

Perform the following steps to use the WinFlash Utility:

1. Double click the WinFlash executable.
2. Click **OK** to begin the update. A progress screen displays.



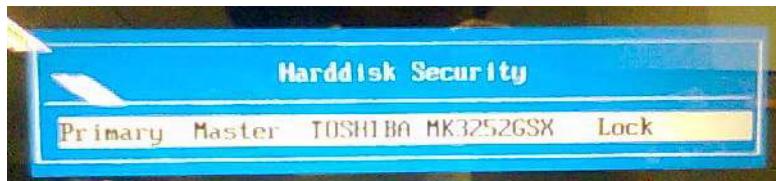
3. When the process is complete, close all programs and applications and reboot the system.

# Remove HDD/BIOS Password Utilities

This section provides you with details about removing HDD/BIOS password methods:

## Removing HDD Password:

If you key in the wrong HDD password three times, an error is generated.

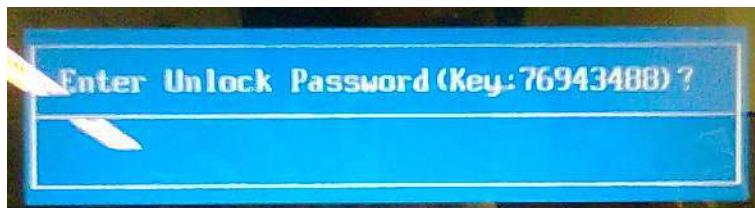


To reset the HDD password, perform the following steps:

1. After the error is displayed, select the **Enter Unlock Password** option on the screen.



2. An Encode key is generated for unlocking utilities. Note down this key.



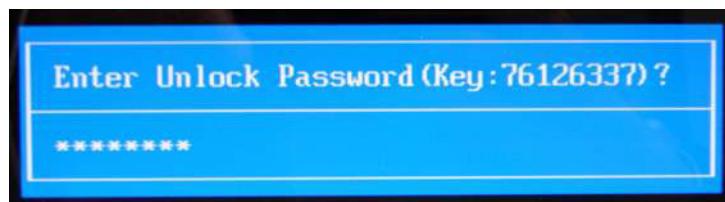
3. Execute the **UnlockHD.EXE** file to create the unlock code in DOS Mode using the format **UnlockHD [Encode key]** with the code noted in the previous step, as follows:

**UnlockHD 76943488**

4. The command generates a password which can be used for unlocking the HDD.

**Password : 46548274**

5. Key in the password from the previous step to unlock the HDD as shown.



---

### **Removing BIOS Passwords:**

To clear the User or Supervisor passwords, open the 3G bay door and use a metal instrument to short the **RTC\_RST** jumper as shown below.



### **Cleaning BIOS Passwords**

To clean the User or Supervisor passwords, perform the following steps:

1. From a DOS prompt, execute **clnpwd.exe**
2. Press **1** or **2** to clean the desired password shown on the screen.

```
d:\Clnpwd>clnpwd
ACER Clean Password Utility V1.00
Press 1 or 2 to clean any password shown as below
      1>User Password
      2>Supervisor Password
Clean User Password Successfully!
```

The onscreen message determines whether the function is successful or not.

---

## Miscellaneous Utilities

### Using Boot Sequence Selector

Boot Sequence Selector allows the boot order to be changes without accessing the BIOS. To use Boot Sequence Selector, perform the following steps:

1. Enter into DOS.
2. Execute BS.exe to display the usage screen.

```
d:\BOOTSEQ>bs  
*** Boot Sequence Selecter Version 0.03 ***  
Create by Rockwell Chuang 10/01/2005.  
  
Usage:  
      BS [ 1 | 2 | 3 | 4 ]  
  
BS 1 : [ Floppy ] => [ HardDisk ] => [ CD-ROM ] => [ LAN ]  
BS 2 : [ HardDisk ] => [ CD-ROM ] => [ LAN ] => [ Floppy ]  
BS 3 : [ CD-ROM ] => [ HardDisk ] => [ LAN ] => [ Floppy ]  
BS 4 : [ LAN ] => [ Floppy ] => [ HardDisk ] => [ CD-ROM ]  
  
d:\BOOTSEQ>
```

3. Select the desired boot sequence by entering the corresponding sequence, for example, enter BS2 to change the boot sequence to HDD|CD ROM|LAN|Floppy.

### Using DMITools

The DMI (Desktop Management Interface) Tool copies BIOS information to eeprom to be used in the DMI pool for hardware management.

When the BIOS displays **Verifying DMI pool data** it is checking the table correlates with the hardware before sending to the operating system (Windows, etc.).

To update the DMI Pool, perform the following steps:

1. Enter into DOS.
2. Execute **dmitools.exe**. The following messages show dmitools usage:  
DMITOOLS [ /R | /WP | /WS | /WU ] [ STRING ]
  - dmitools /r ==> Read dmi string from bios
  - dmitools /wm xxxx ==> Write manufacturer name to eeprom
  - dmitools /wp xxxx ==> Write product name to eeprom
  - dmitools /ws xxxx ==> Write serial number to eeprom
  - dmitools /wu xxxx ==> Write uuid to eeprom
  - dmitools /wa xxxx ==> Write asset tag to eeprom

**IMPORTANT:** The following write examples (2 to 5) require a system reboot to take effect

---

## **Example 1: Read DMI Information from Memory**

Input:

```
dmitools /r
```

Output:

```
Manufacturer (Type1, Offset04h): Acer  
Product Name (Type1, Offset05h): eMachines eM250 xxxx  
Serial Number (Type1, Offset07h): 01234567890123456789  
UUID String (Type1, Offset08h): xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx  
Asset Tag (Type3, Offset04h): Acer Asstag
```

## **Example 2: Write Product Name to EEPROM**

Input:

```
dmitools /wp Acer
```

## **Example 3: Write Serial Number to EEPROM**

Input:

```
dmitools /ws 01234567890123456789
```

## **Example 4: Write UUID to EEPROM (Create UUID from Intel WFM20.pdf)**

Input:

```
dmitools /wu
```

## **Example 5: Write Asset Tag to EEPROM**

Input:

```
dmitools /wa Acer Asstag
```

## **Using the LAN MAC Utility**

Perform the following steps to write MAC information to eeprom:

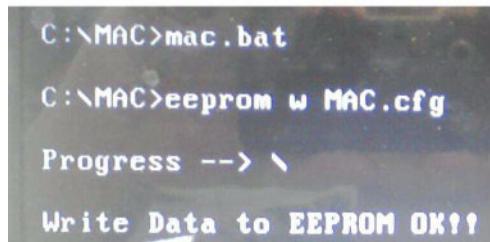
1. Use a text editor, for example Notepad, to edit the MAC.CFG file as shown:



- WriteData= '001122334455' <----- MAC value
- StartAddr=7A <----- MAC address
- WriteLeng=6 <----- MAC value length
- KeepByte=0 <----- can be any value

2. Boot into DOS.

- 
3. Execute **MAC.BAT** to write MAC information to eeprom.



```
C:\MAC>mac.bat  
C:\MAC>eeprom w MAC.cfg  
Progress --> \  
Write Data to EEPROM OK!!
```



# Machine Disassembly and Replacement

---

This chapter contains step-by-step procedures on how to disassemble the notebook computer for maintenance and troubleshooting.

## Disassembly Requirements

To disassemble the computer, you need the following tools:

- Wrist grounding strap and conductive mat for preventing electrostatic discharge
- Flat screwdriver
- Philips screwdriver
- Plastic flat screwdriver
- Plastic tweezers

**NOTE:** The screws for the different components vary in size. During the disassembly process, group the screws with the corresponding components to avoid mismatch when putting back the components.

## Related Information

The product previews seen in the disassembly procedures may not represent the final product color or configuration.

**IMPORTANT:** Cable paths and positioning may not represent the actual model. During the removal and replacement of components, ensure all available cable channels and clips are used and that the cables are replaced in the same position.

# General Information

## Pre-disassembly Instructions

Before proceeding with the disassembly procedure, make sure that you do the following:

1. Turn off the power to the system and all peripherals.
2. Unplug the AC adapter and all power and signal cables from the system.



3. Place the system on a flat, stable surface.
4. Remove the battery pack.

## Disassembly Process

The disassembly process is divided into the following sections:

- External components disassembly
- Main unit disassembly
- LCD module disassembly

The flowcharts provided in the succeeding disassembly sections illustrate the entire disassembly sequence. Observe the order of the sequence to avoid damage to any of the hardware components. For example, if you want to remove the Mainboard, you must first remove the Keyboard, and LCD Module then disassemble the inside assembly frame in that order.

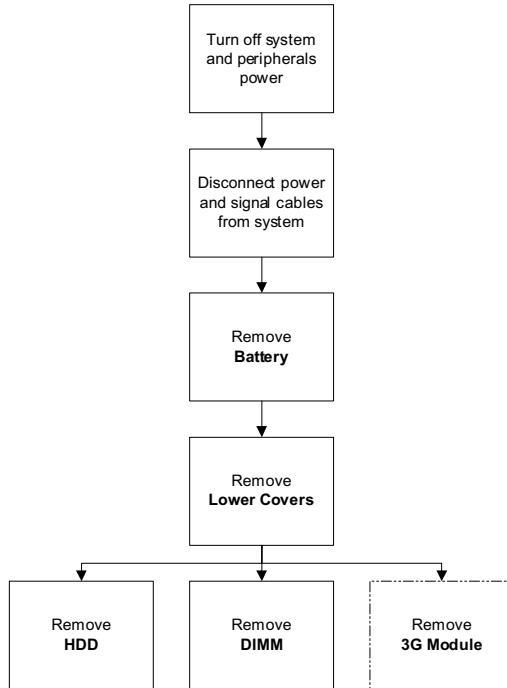
### Main Screw List

Screw	Quantity	Part Number
M1.98D 4.0L K 4.6D 0.8T ZK	35	86.S6802.001
M2D 2.5L K 6.5D ZK NL	3	86.S6802.002
M1.98D 3.0L K 4.6D NI NL	9	86.S6802.003
M3.0D 3.0L K 4.9D NI	4	86.S6802.004
M2D 12L K 4.6D NI NL	1	86.S6802.008

# External Module Disassembly Process

**NOTE:** The product previews seen in the disassembly procedures may not represent the final product color or configuration.

## External Modules Disassembly Flowchart



**NOTE:** Items enclosed with broken lines (— - - —) are optional and may not be present.

### Screw List

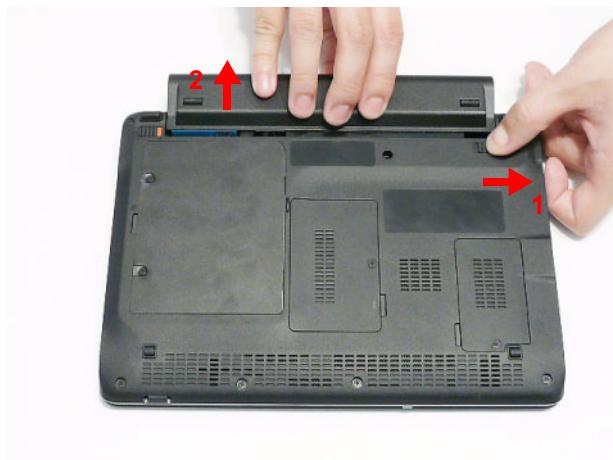
Step	Screw	Quantity	Part No.
Lower Covers	M2*4	4	86.S6802.001
HDD Module	M2*4	1	86.S6802.001
HDD Carrier	M3*3	4	86.S6802.004
3G Module (optional)	M2*3	1	86.S6802.003

## Removing the Battery Pack

1. Turn the computer over.
2. Slide the battery lock/unlock latch to the unlock position.

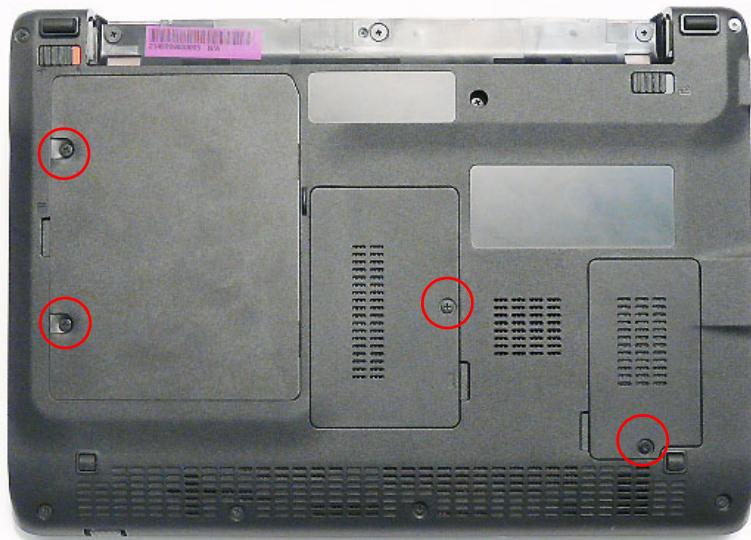


3. Slide and hold the battery release latch to the release position (1), then slide out the battery pack from the main unit (2).



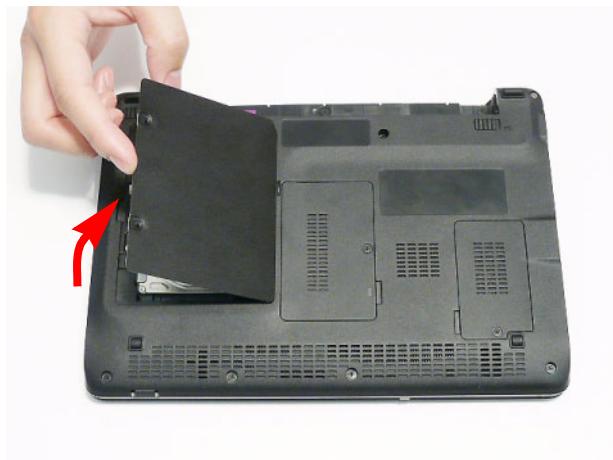
## Removing the Lower Covers

1. See "Removing the Battery Pack" on page 40.
2. Remove the four from the HDD, Memory, and 3G Covers.



Step	Size	Quantity	Screw Type
Lower Covers	M2*4	4	

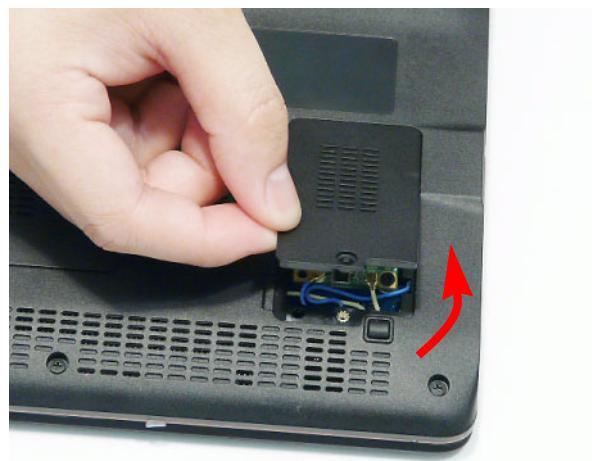
3. Lift the HDD cover up to remove.



- 
4. Lift the Memory cover up to remove.



5. Lift the 3G cover up to remove.



## Removing the Hard Disk Drive Module

1. See "Removing the Lower Covers" on page 41.
2. Remove the single screw securing the HDD Module in place.



Step	Size	Quantity	Screw Type
HDD Module	M2*4	1	

3. Slide the HDD in the direction of the arrow to disconnect the HDD from the interface connector.

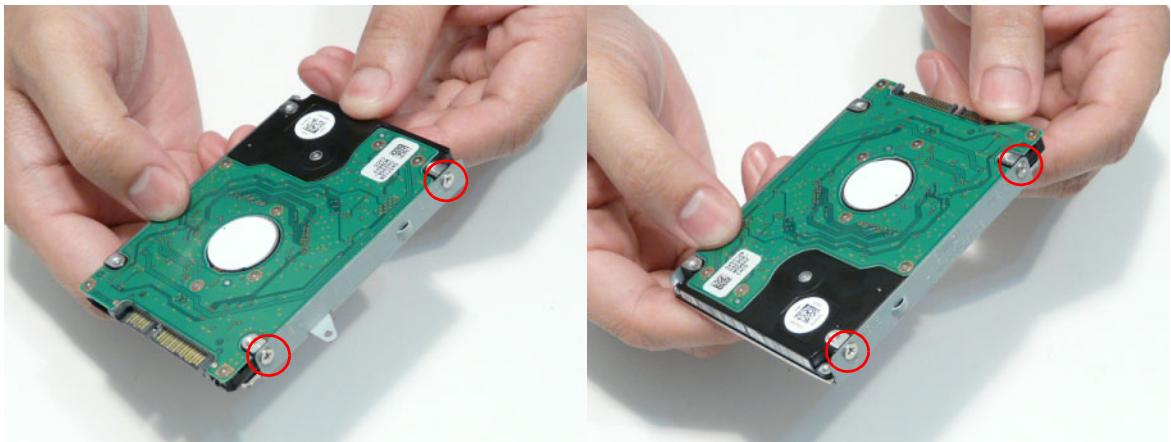


- 
4. Lift the hard disk drive module out of the bay.



**NOTE:** To prevent damage to device, avoid pressing down on it or placing heavy objects on top of it.

5. Remove the four screws (two each side) securing the hard disk to the carrier.



Step	Size	Quantity	Screw Type
HDD Carrier	M3*3	4	

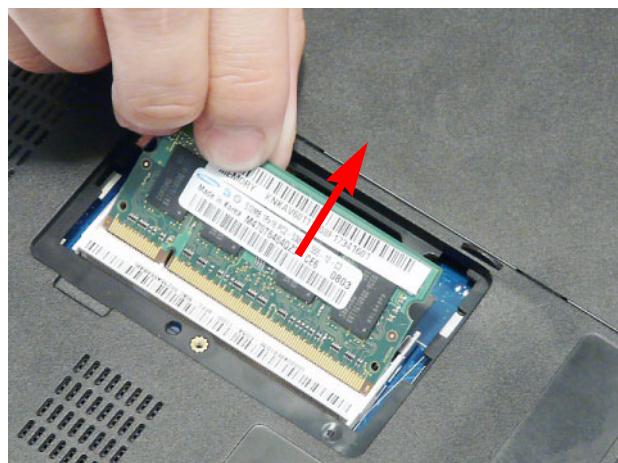
6. Remove the HDD from the carrier.

## Removing the DIMM Module

1. See "Removing the Lower Covers" on page 41.
2. Push out the release latches on both sides of the DIMM socket to release the DIMM module.



3. Remove the DIMM module.

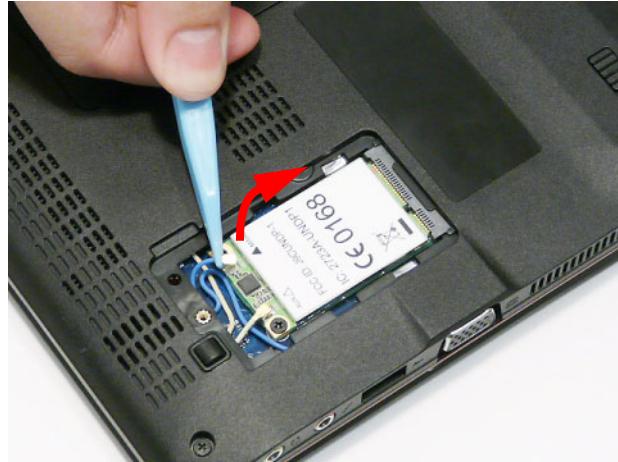


## Removing the 3G Module

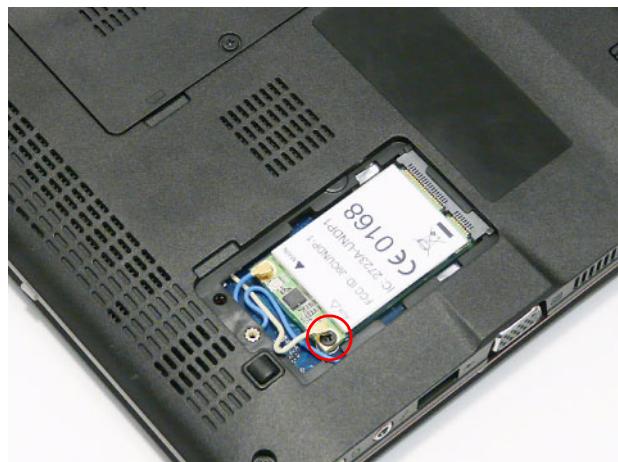
**IMPORTANT:** 3G functionality is not supported by all models.

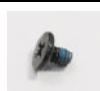
1. See "Removing the Lower Covers" on page 41.
2. Disconnect the 3G Antenna cables from the 3G Module.

**IMPORTANT:** The Blue cable attaches to the MAIN terminal and the Yellow cable attaches to the AUX terminal.



3. Move the antenna away and remove the single screw from the 3G Module.



Step	Size	Quantity	Screw Type
3G Module	M2*3	1	

- 
4. Detach the 3G Module from the socket.



**NOTE:** When reattaching the antennas, ensure the cables are tucked into the chassis to prevent damage.

# Main Unit Disassembly Process

**IMPORTANT:** Cable paths and positioning may not represent the actual model. During the removal and replacement of components, ensure all available cable channels and clips are used and that the cables are replaced in the same position.

**NOTE:** The product previews seen in the disassembly procedures may not represent the final product color or configuration.

## Main Unit Disassembly Flowchart



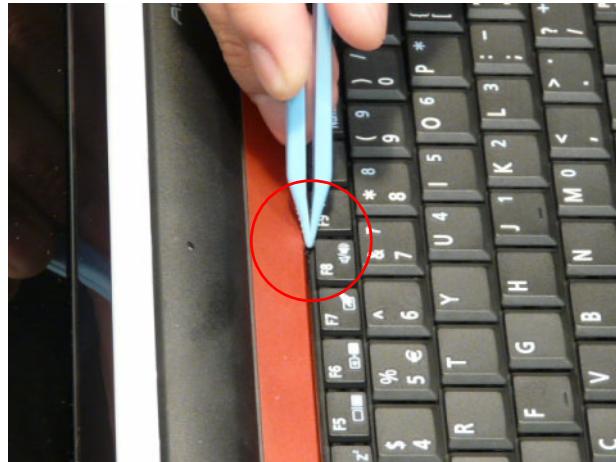
### Screw List

Step	Screw	Quantity	Part No.
Upper Cover	M2*3	3	86.S6802.002
	M2*4	7	86.S6802.001
	M2*12	1	86.S6802.008
	M2*4	5	86.S6802.001
Power Board	M2*3	1	86.S6802.003
WLAN Board	M2*3	1	86.S6802.003
USB Board	M2*4	1	86.S6802.001
Mainboard	M2*4	1	86.S6802.001
Thermal Module	M2*4	4	86.S6802.001
Speaker Module	M2*4	2	86.S6802.001
LCD Module	M2*4	4	86.S6802.001

## Removing the Keyboard

1. See "Removing the Battery Pack" on page 40.
2. Turn the computer rightside up and open the lid to the full extent.
3. Unlock the single securing latch above the **F8** key by pressing down with plastic tweezers.

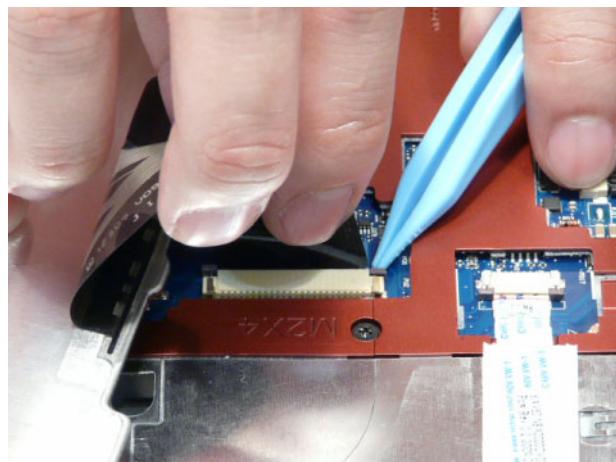
**IMPORTANT:** The use of metal tools may damage the outer casing. Use plastic tools where available.



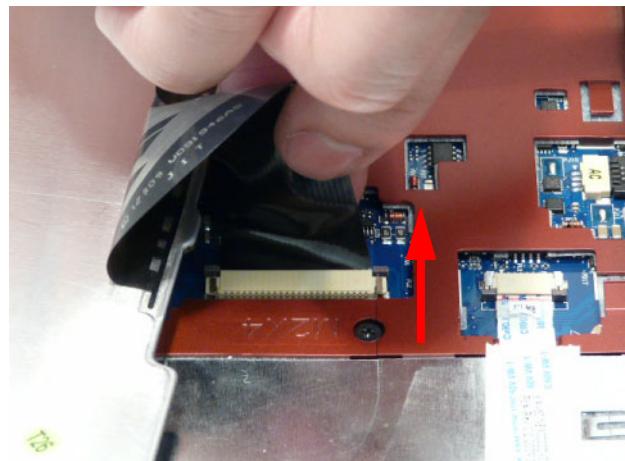
4. Grasp the Keyboard and lift upward in the centre as shown.



5. Turn the Keyboard over and open Keyboard FFC securing latch as shown.

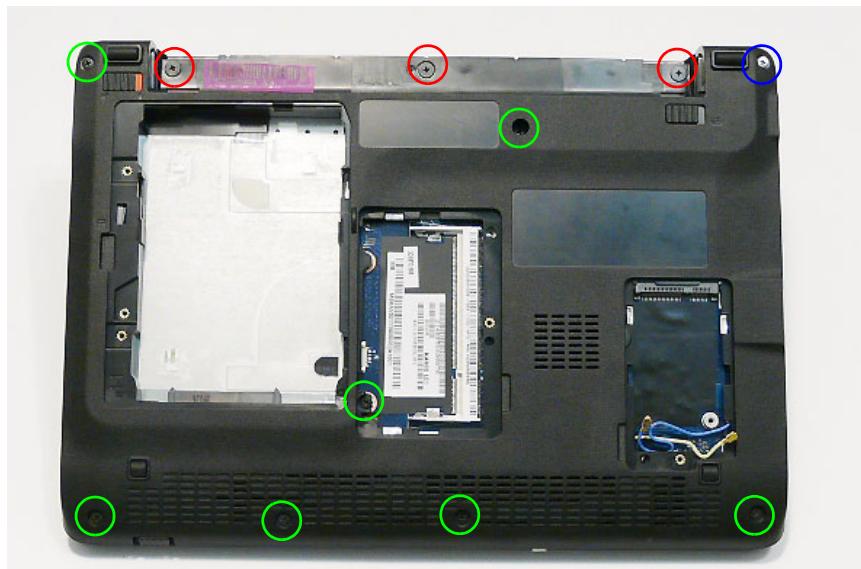


- 
6. Disconnect the FFC and remove the Keyboard.



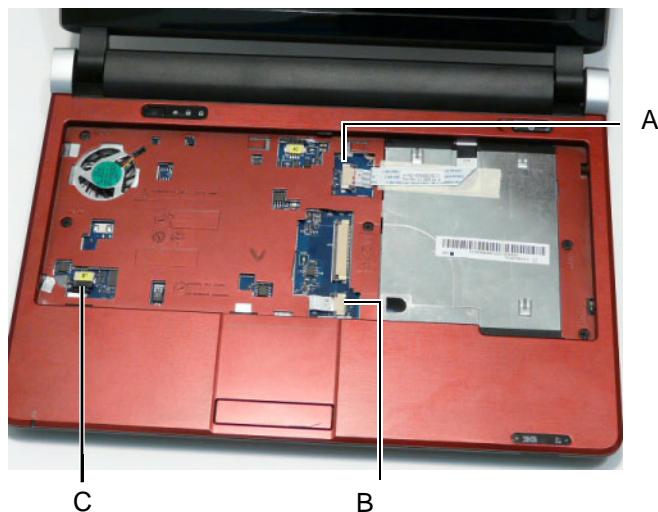
## Removing the Upper Cover

1. See "Removing the Keyboard" on page 49.
2. Turn the computer over. Remove the eleven securing screws.

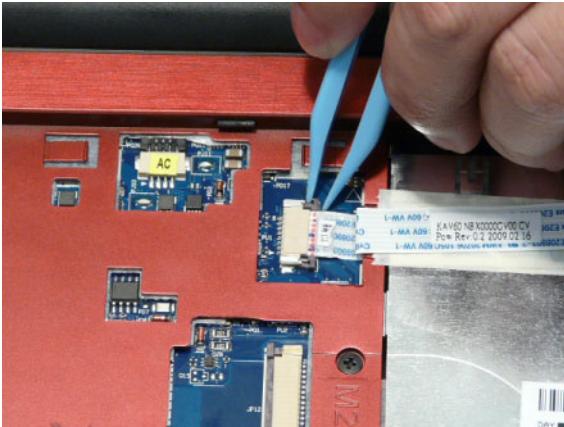


Step	Size	Quantity	Screw Type
Upper Cover (red callouts)	M2*3	3	
Upper Cover (green callouts)	M2*4	7	
Upper Cover (blue callout)	M2*12	1	

3. Turn the computer over and disconnect the following cables from the Mainboard.



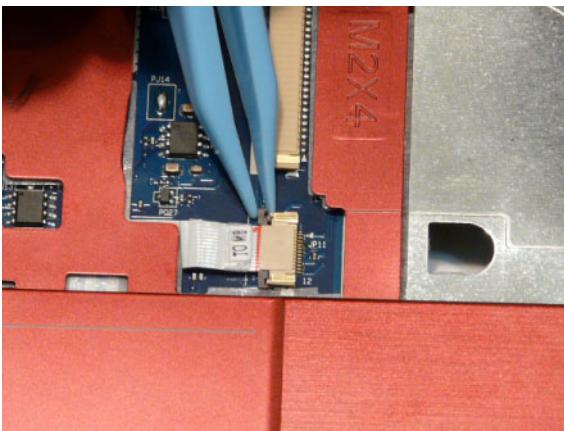
Release the locking latch on A as shown.



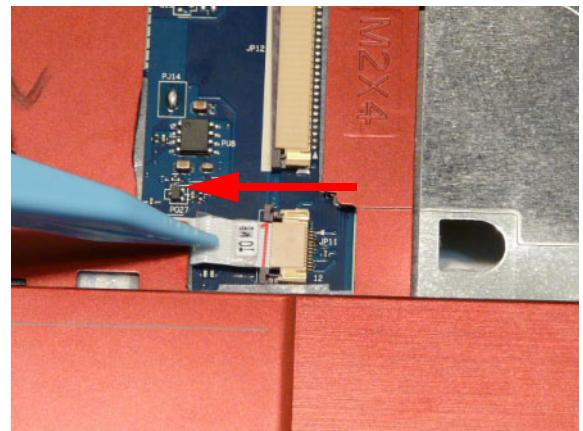
Disconnect A from the Mainboard.



Release the locking latch on B as shown.



Disconnect B from the Mainboard.



Disconnect C as shown.



- 
4. Remove the five securing screws from the Upper Cover.



Step	Size	Quantity	Screw Type
Upper Cover	M2*4	5	

**CAUTION:** Cables are placed inside the Hinge Cover Caps. When disassembling the panel or covers, take care to dislodge the cables from the base to prevent damage.

5. Remove the Hinge Covers as shown.

**NOTE:** The Hinge Covers are not identical; the right side cover has a longer locating pin.



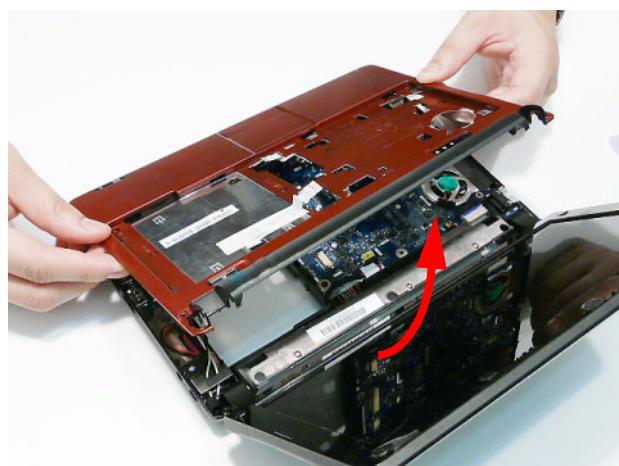
6. Grasp the top-right side of the upper cover and pry apart.



- 
7. Lift the left side of the Upper Cover away from the Lower Cover.



8. Lift the Upper Cover clear of the Lower Cover.

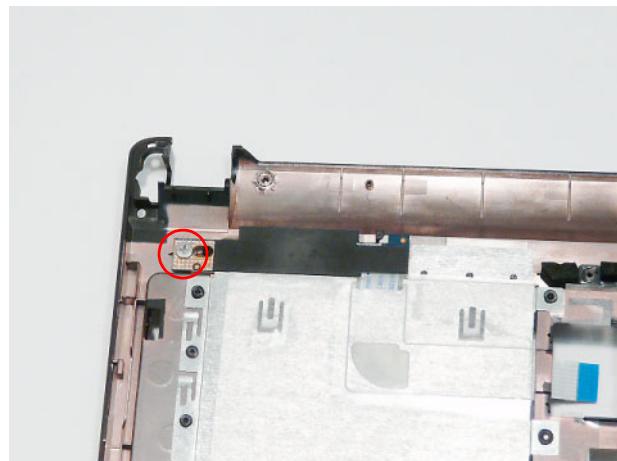


## Removing the Power Board

1. See "Removing the Upper Cover" on page 51.
2. Lift the Power Board FFC to detach the adhesive securing it in place.

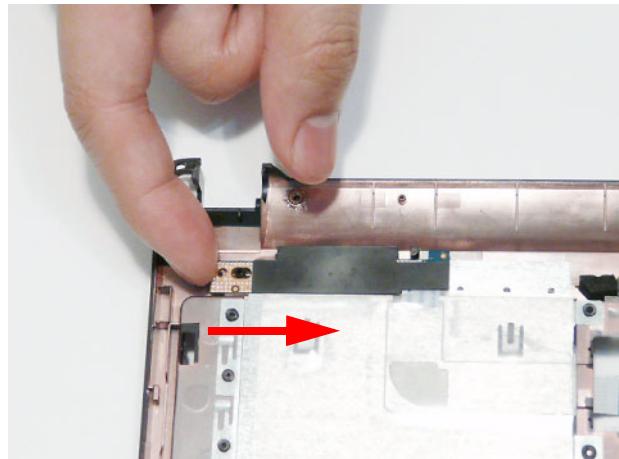


3. Turn the Upper Cover over and remove the single screw securing the Power Board in place.

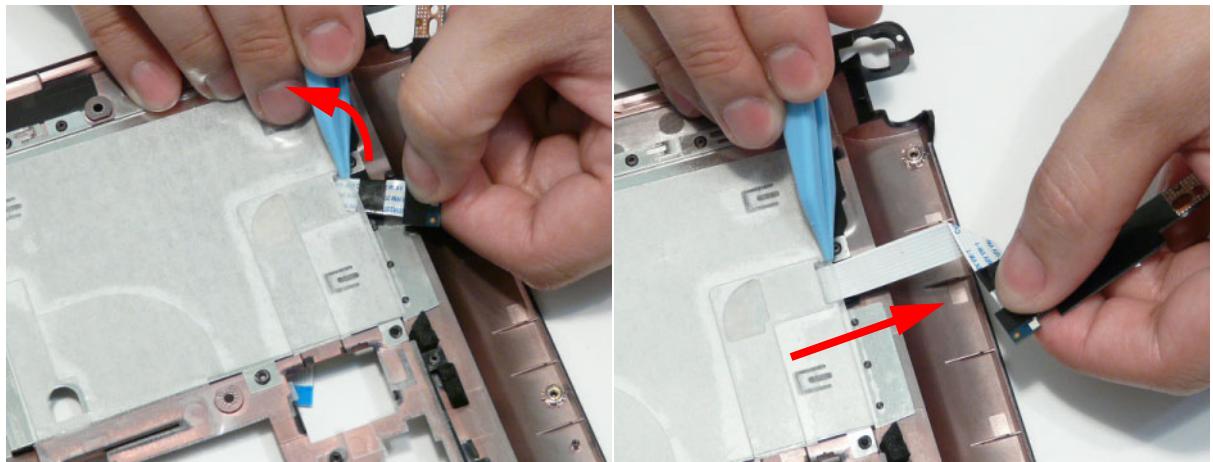


Step	Size	Quantity	Screw Type
Power Board	M2*3	1	

- 
4. Slide the Power Board to the right to disengage the locating pin.



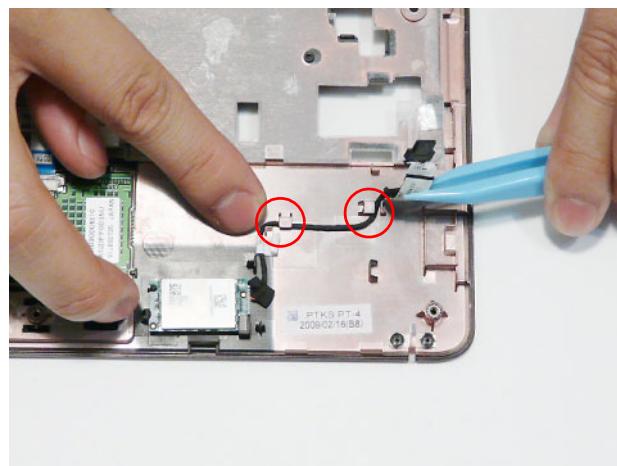
5. Lift the mylar sheet away from the Upper Cover to allow the Power Board FFC to pass through the cover.



6. Remove the board from the Upper Cover.

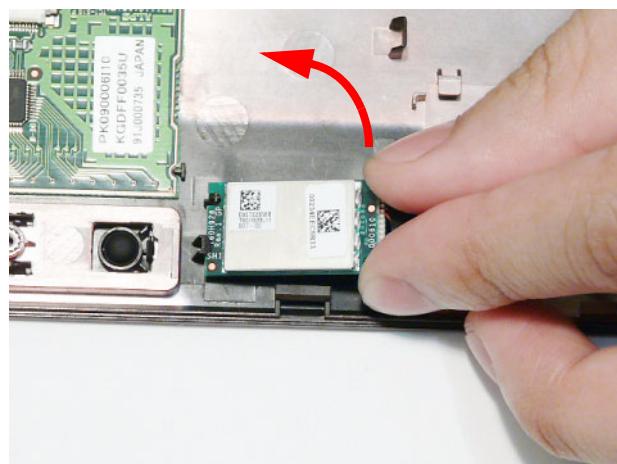
## Removing the Bluetooth Module

1. See “Removing the Upper Cover” on page 51.
2. Remove the Bluetooth Module cable from the cable channel. Ensure that the cable is free from all cable clips.

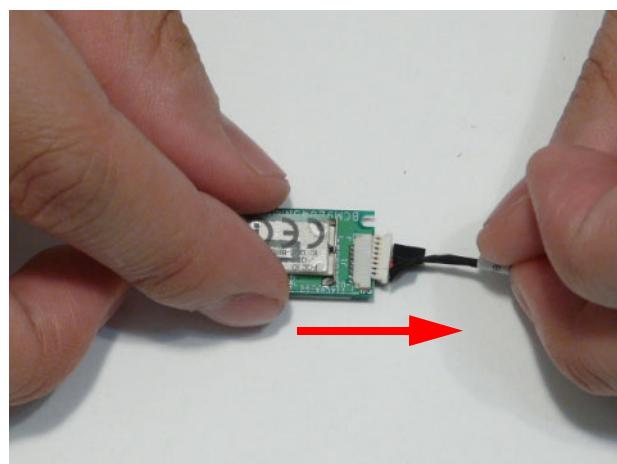


3. Lift the Bluetooth Module, left side first, to remove it from the Upper Cover.

**NOTE:** The Bluetooth Module is held in place by a single screw (M2\*3) on some models.



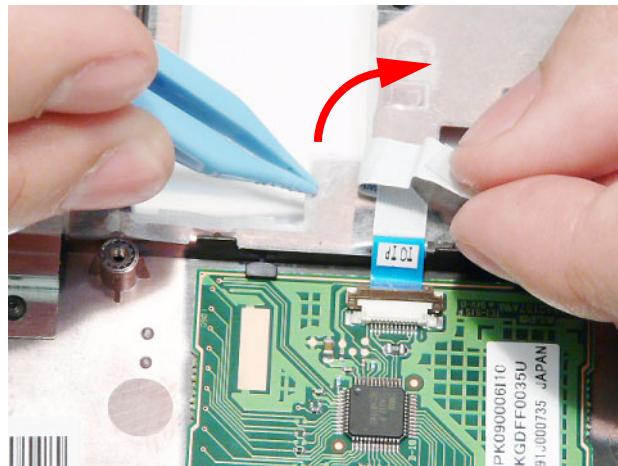
4. Disconnect the cable from the Bluetooth Module as shown.



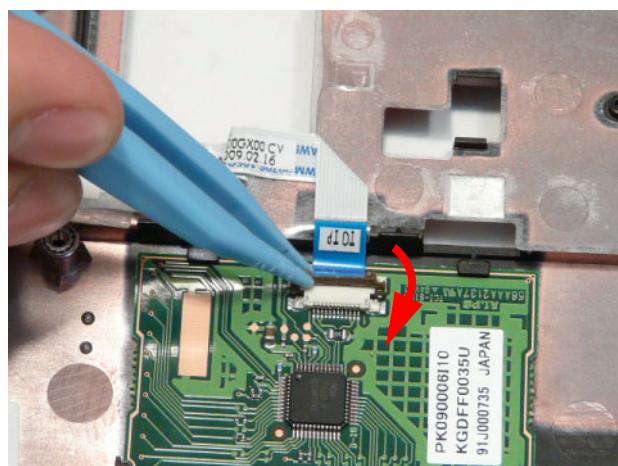
## Removing the TouchPad FFC

**IMPORTANT:** The TouchPad Board cannot be removed individually. To replace the TouchPad Board, replace the entire Upper Cover.

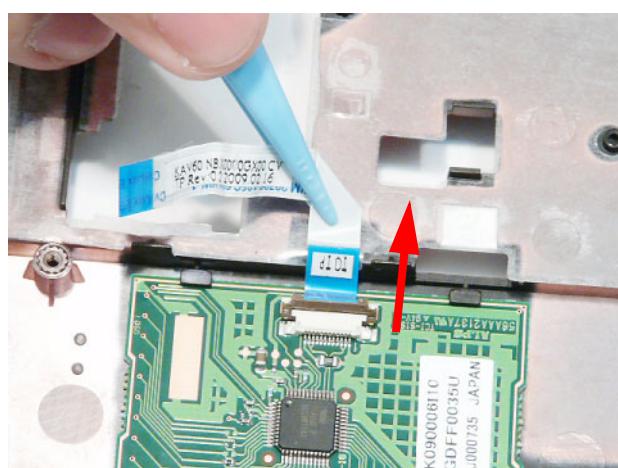
1. See "Removing the Upper Cover" on page 51.
2. Hold the mylar sheet in place and lift the FFC away from the Upper Cover.



3. Open the FFC locking latch as shown.



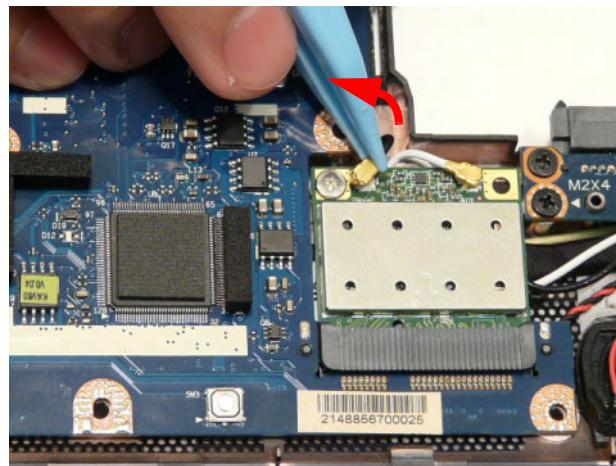
4. Remove the TouchPad FFC from the Upper Cover.



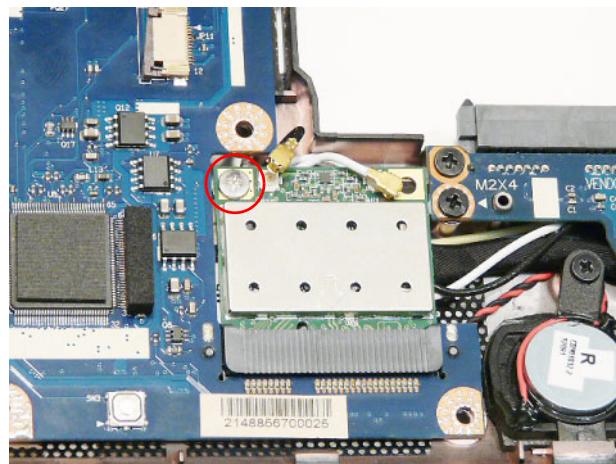
## Removing the WLAN Board

1. See "Removing the Upper Cover" on page 51.
2. Disconnect the Antenna cables from the WLAN Board.

**NOTE:** Cable placement is Black to the MAIN terminal (left) and White to the AUX terminal (right).

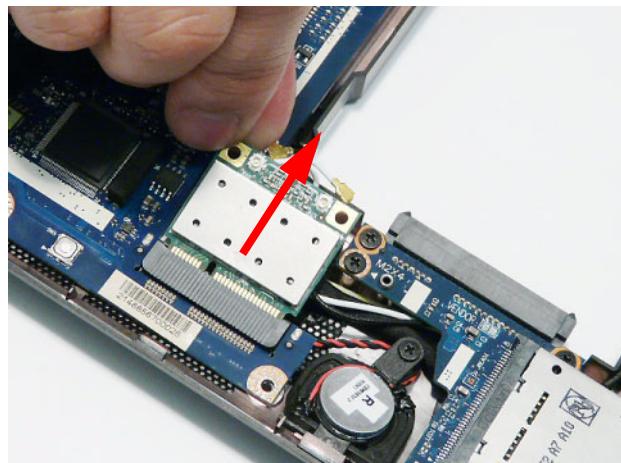


3. Remove the single screw securing the WLAN Board in place.



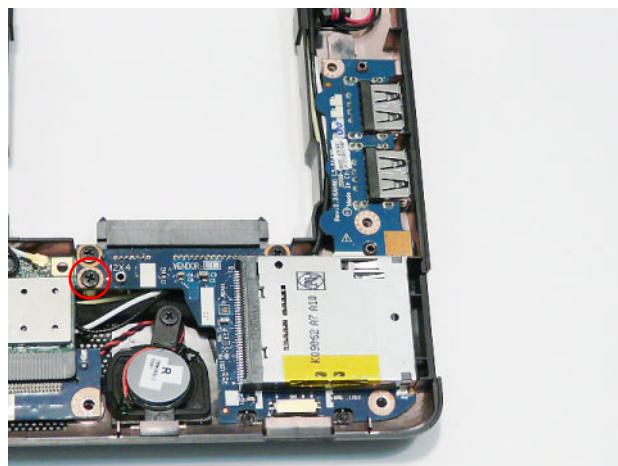
Step	Size	Quantity	Screw Type
WLAN Board	M2*3	1	

- 
4. Remove the WLAN Board from the Mainboard.



## Removing the USB Board

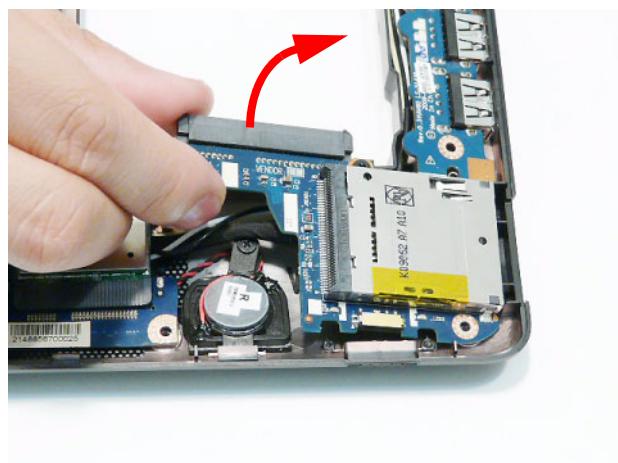
1. See "Removing the Upper Cover" on page 51.
2. Remove the single screw securing the USB Board to the Lower Cover.



Step	Size	Quantity	Screw Type
USB Board	M2*4	1	

3. Lift the USB Board, left side first to free the I/O ports from the Lower Cover.

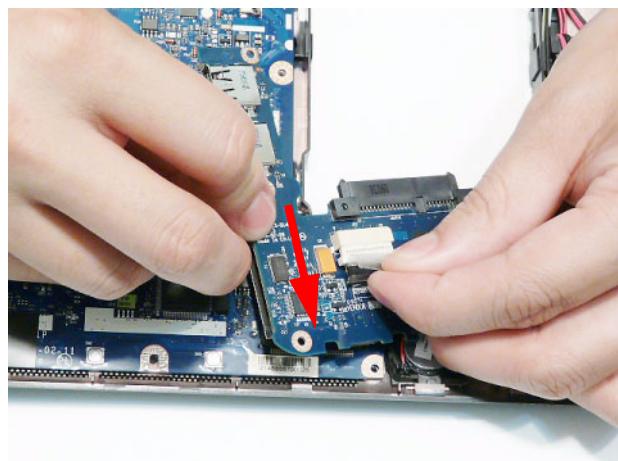
**IMPORTANT:** Do not fully remove the USB Board from the cover; the USB Board cable is attached to the underside of the board.



- 
4. Turn the board over to expose the cable connector. Detach the adhesive strip holding the cable in place.



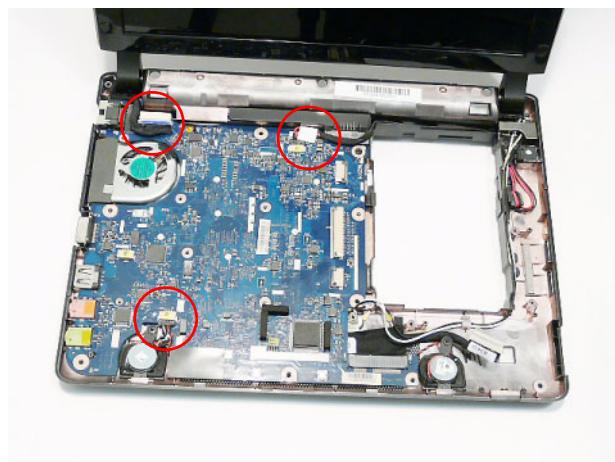
5. Disconnect the cable from the USB Board.



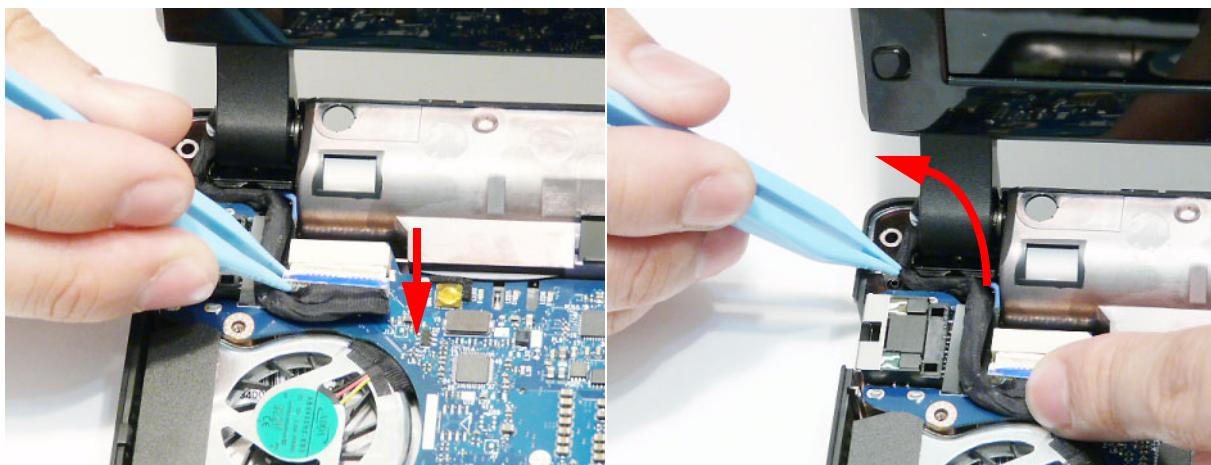
6. Remove the USB Board from the Lower Cover.

## Removing the Mainboard

1. See "Removing the USB Board" on page 61.
2. Disconnect the LVDS, AC, and Speaker cables from the Mainboard.



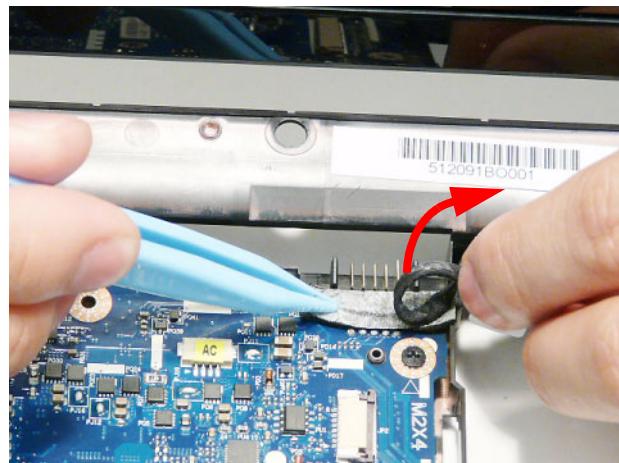
3. Disconnect the LVDS cable and remove the cable from the cable channel.



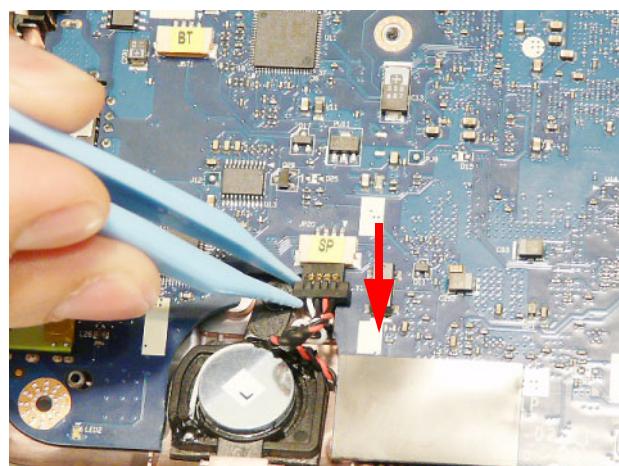
4. Disconnect the AC cable as shown.



5. Hold the adhesive strip in place on the Mainboard and remove the AC cable as shown.



6. Disconnect the Speaker cable as shown.



7. Remove the single screw securing the Mainboard to the Lower Cover.

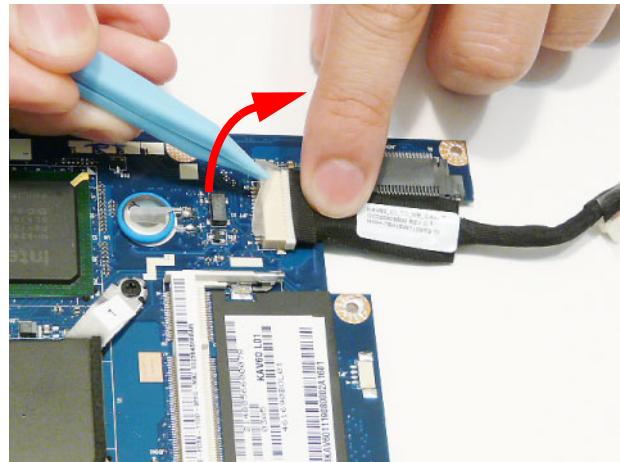


Step	Size	Quantity	Screw Type
Mainboard	M2*4	1	

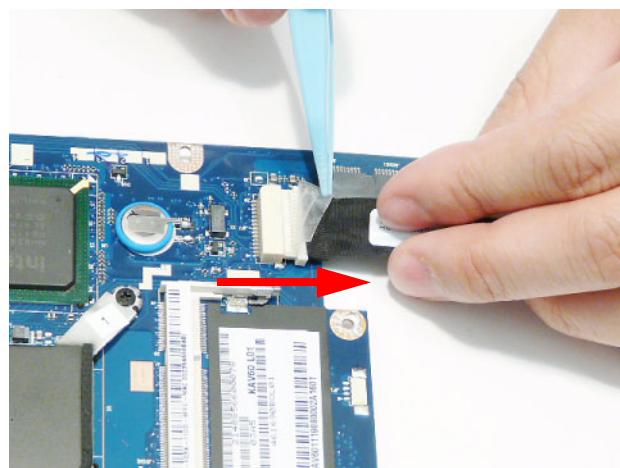
- 
8. Lift the Mainboard right side first and remove it from the Lower Cover.



9. Turn the Mainboard CPU side up, and place it on a clean surface. Detach the adhesive strip holding the USB Board cable in place.



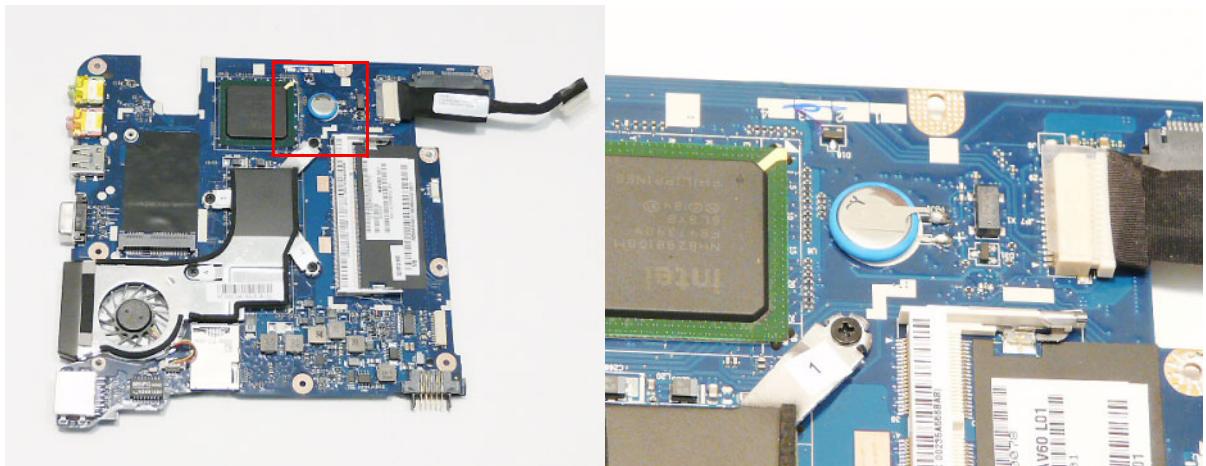
10. Disconnect the USB Board cable as shown.



## Removing the RTC Battery

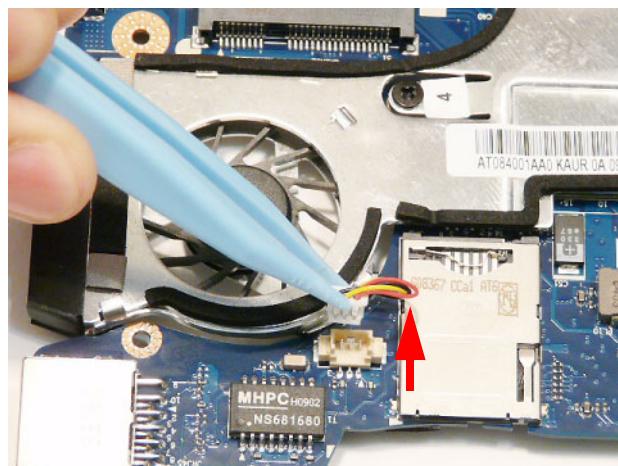
**IMPORTANT:** Follow local regulations for disposal of all batteries.

1. See "Removing the Mainboard" on page 63.
2. The RTC Battery is soldered to the Mainboard. To replace the battery, solder the new battery to the connections shown.

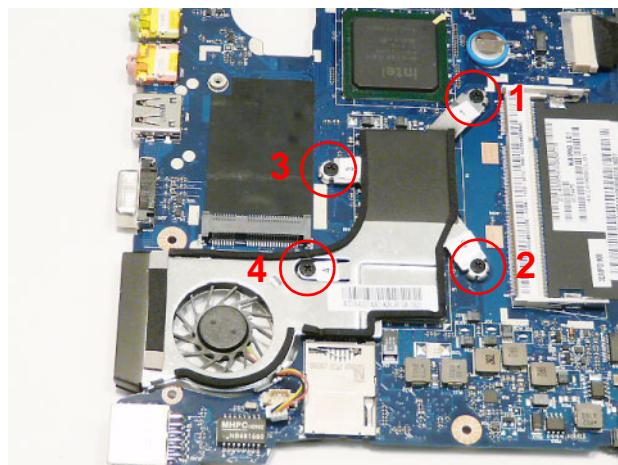


## Removing the Thermal Module

1. See "Removing the Mainboard" on page 63.
2. Disconnect the Fan cable from the Mainboard.

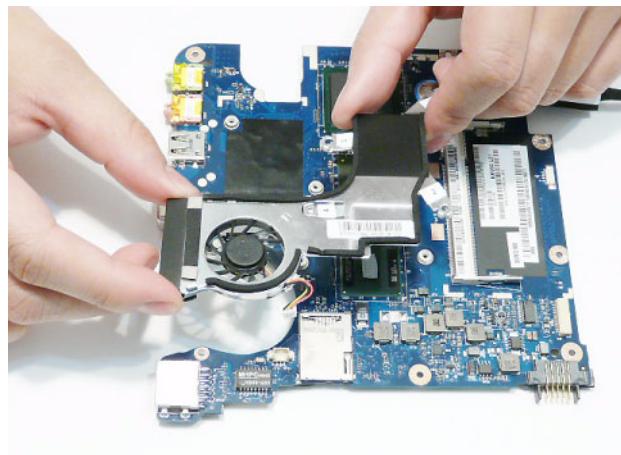


3. Remove the four securing screws from the Thermal Module in numerical order from 4 to 1.



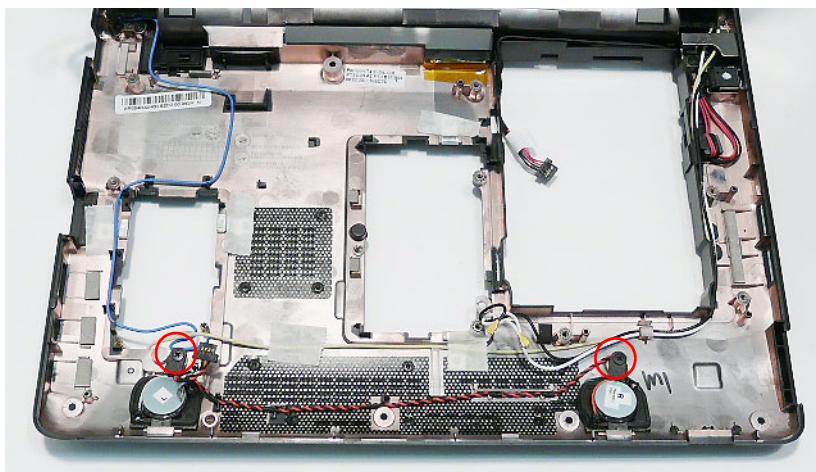
Step	Size	Quantity	Screw Type
Thermal Module	M2*4	4	

- 
4. Lift the Thermal Module clear of the Mainboard.



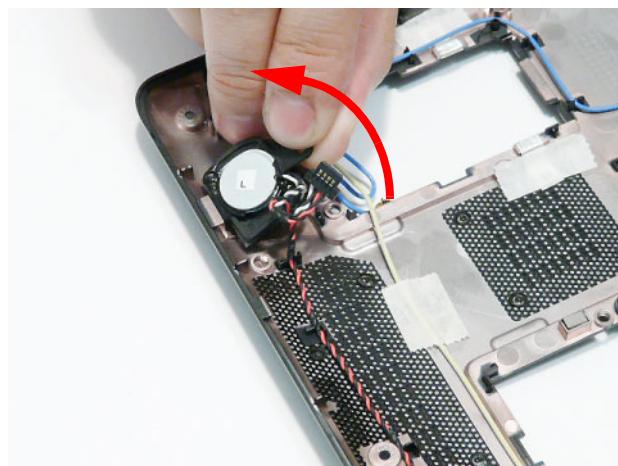
## Removing the Speaker Module

1. See "Removing the Mainboard" on page 63.
2. Remove the two securing screws (one for each Speaker).

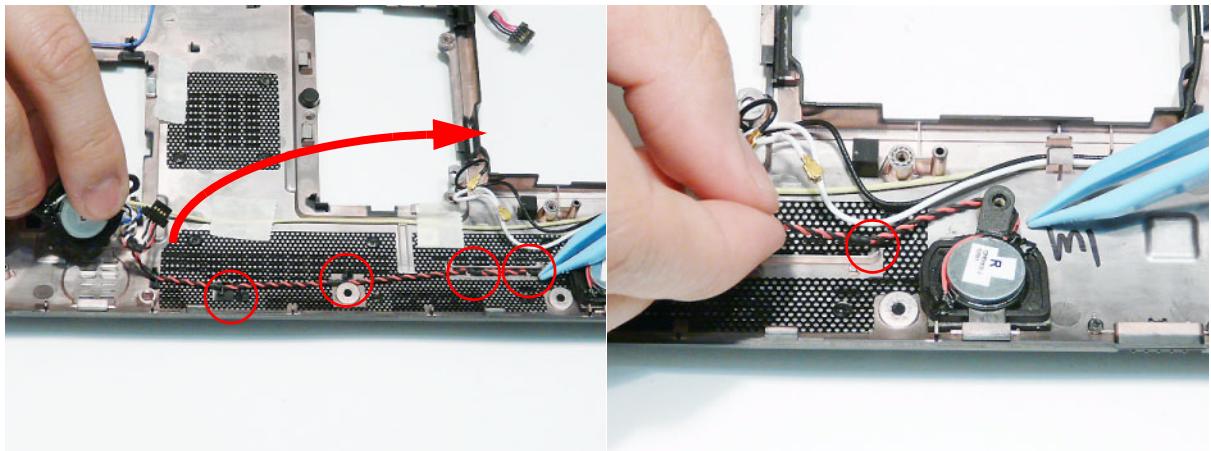


Step	Size	Quantity	Screw Type
Speaker Module	M2*4	2	

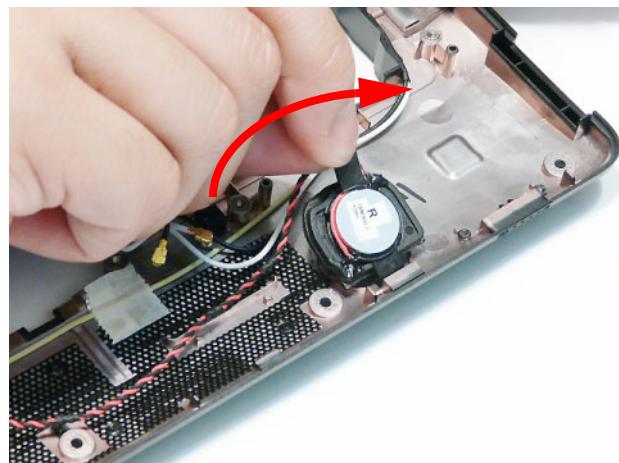
3. Lift the left Speaker out of the Lower Cover, rear edge first as shown.



- 
4. Remove the Speaker cable from the cable channel. Ensure that the cable is free from all cable clips.



5. Lift the right Speaker out of the Lower Cover, rear edge first as shown.



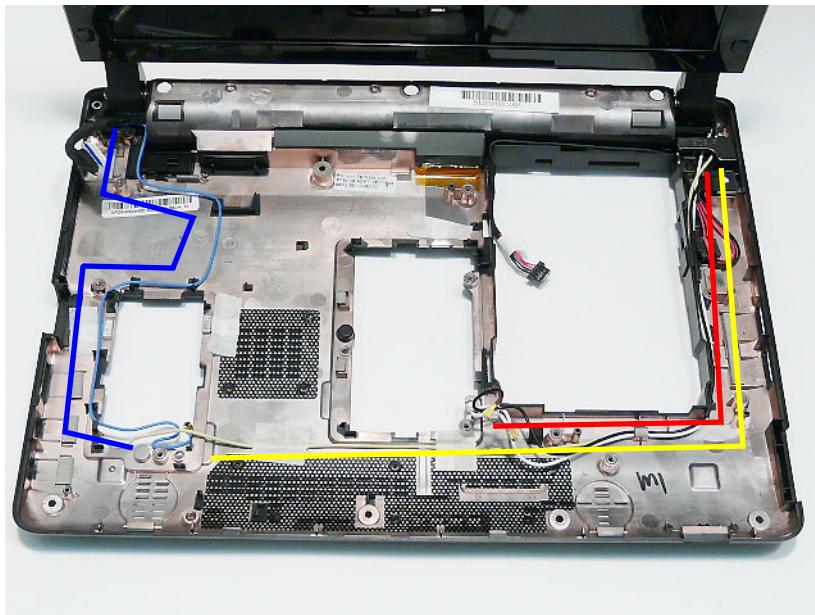
6. Lift the Speaker Module clear of the Lower Cover.

# Removing the LCD Module

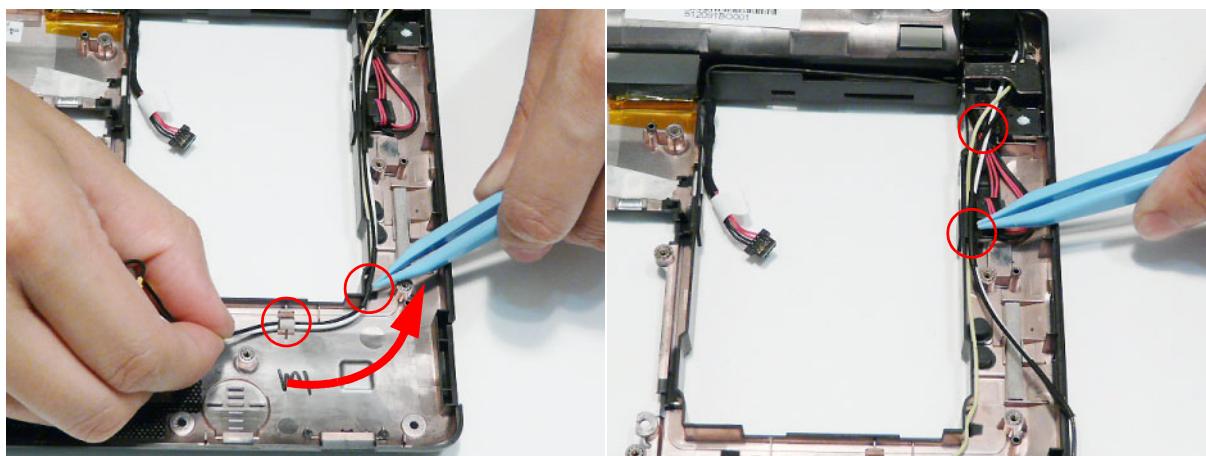
**IMPORTANT:** Cable paths and positioning may not represent the actual model. During the removal and replacement of the LCD Module, ensure all available cable channels and clips are used and that the cables are replaced in the same position.

**NOTE:** The following procedure outlines the steps to remove the LCD Module on models with 3G functionality. Models that do not support 3G do not require the removal of the yellow and blue Antenna cables detailed below.

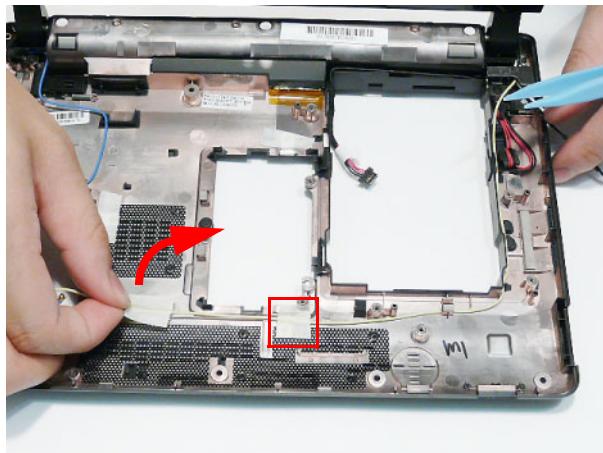
1. See "Removing the Mainboard" on page 63.
2. The Lower Cover appears as follows when the Mainboard is removed.
  - Blue callout—Main 3G Antenna cable
  - Yellow callout—Aux 3G Antenna cable
  - Red callout—Main and Aux WLAN Antennas



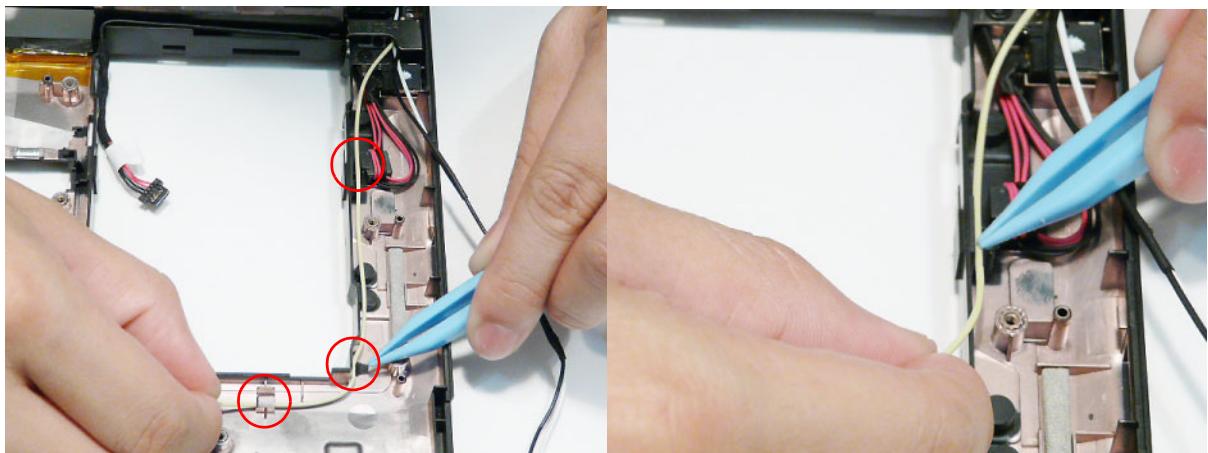
3. Remove the Black and White WLAN cables from the cable clips as shown.



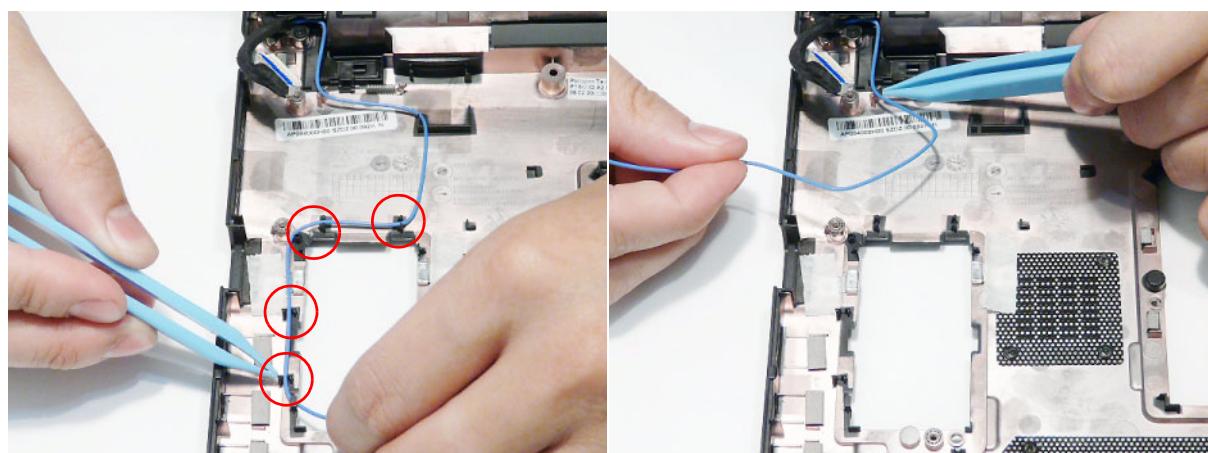
- 
4. Remove the adhesive strips securing the yellow 3G cable in place.



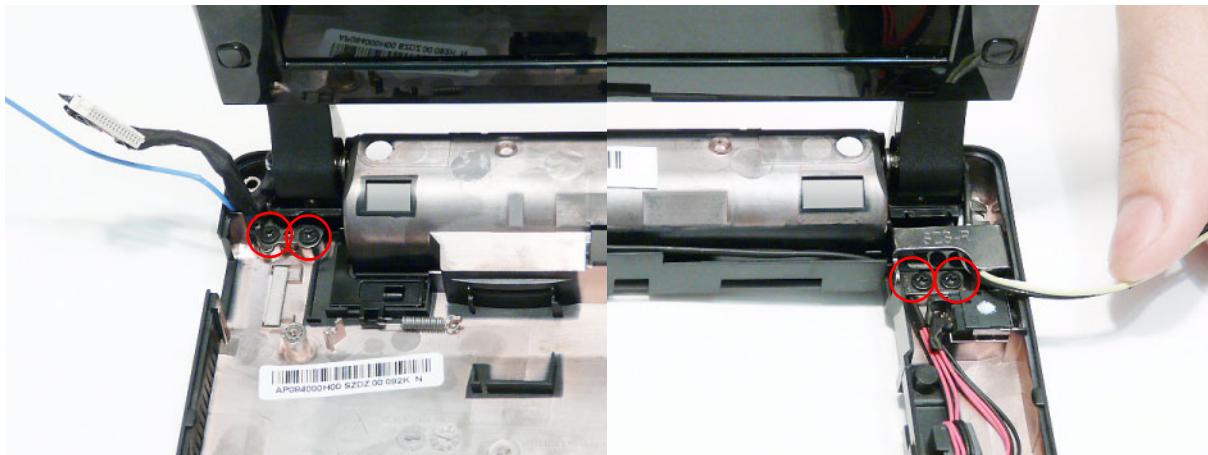
5. Remove the cable from the cable clips.



6. Remove the blue 3G cable from the cable clips as shown.



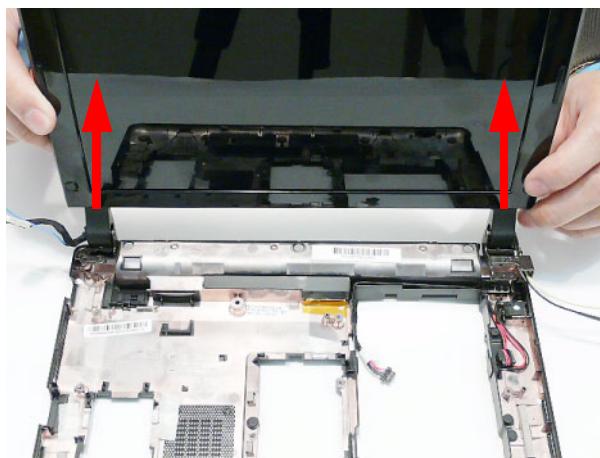
- 
7. Remove the two securing screws from the LCD brackets.



Step	Size	Quantity	Screw Type
LCD Module	M2*4	4	

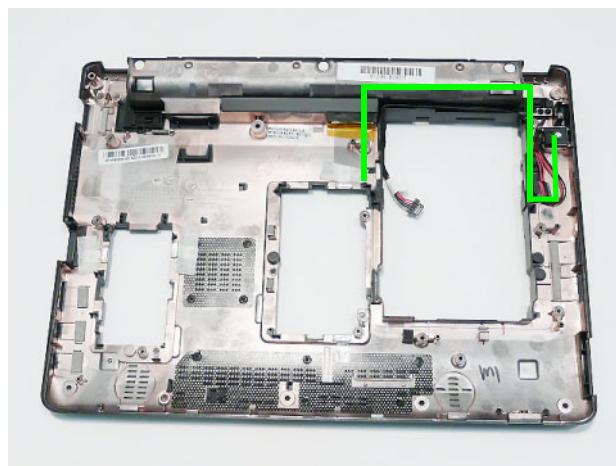
**IMPORTANT:** Ensure all cables are clear of the lower cover before removing the LCD module.

8. Grasp the module with both hands and lift upwards to remove the LCD Module.

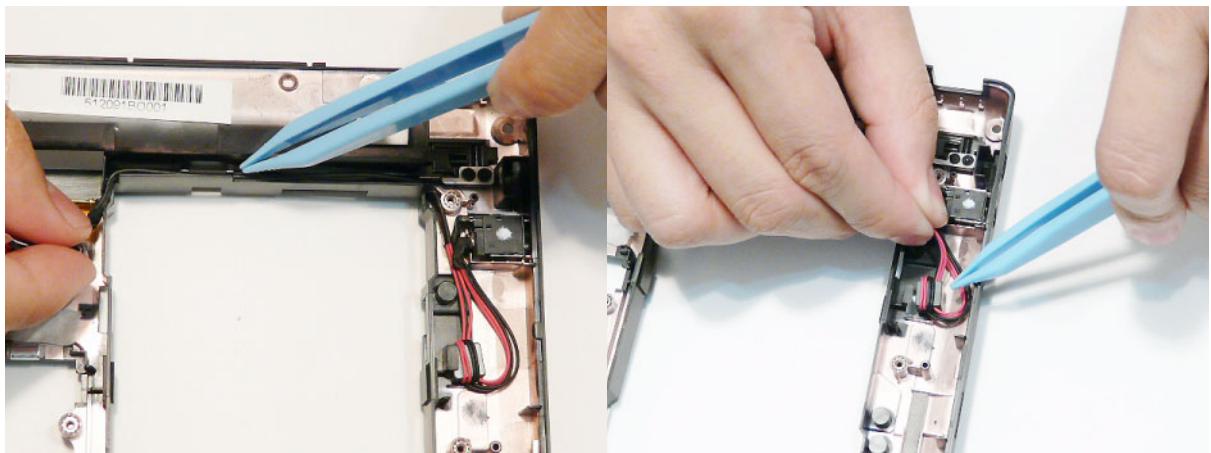


## Removing the AC Power Jack

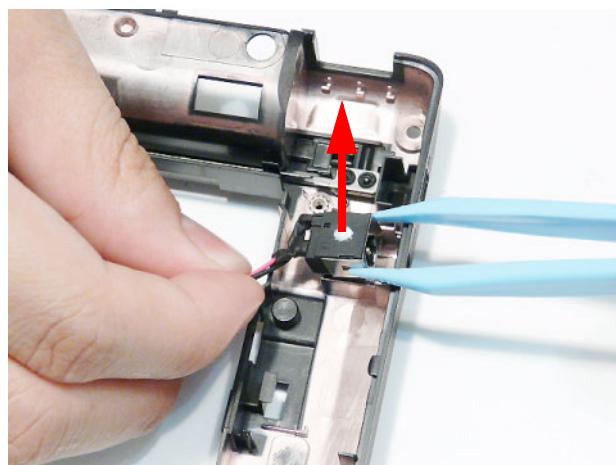
1. See "Removing the Mainboard" on page 63.
2. The AC Power cable runs as shown along the Lower Cover.



3. Remove the AC Power cable from the cable channel. Ensure that the cable is free from all cable clips.



4. Lift the AC Power Jack from the Lower Cover as shown.

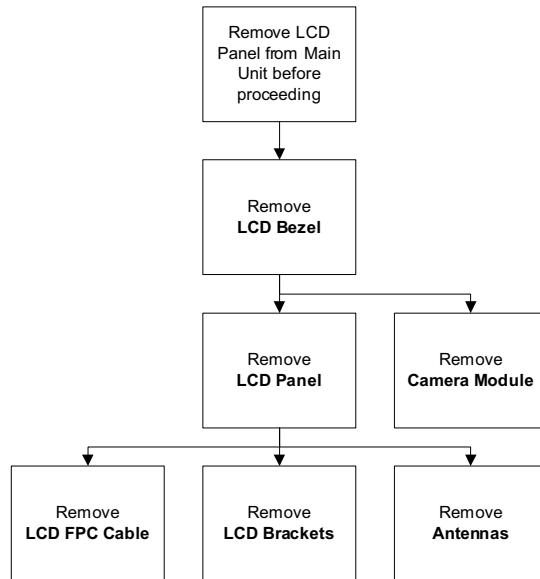


# LCD Module Disassembly Process

**IMPORTANT:** Cable paths and positioning may not represent the actual model. During the removal and replacement of components, ensure all available cable channels and clips are used and that the cables are replaced in the same position.

**NOTE:** The product previews seen in the disassembly procedures may not represent the final product color or configuration. The following procedure outlines the steps to disassemble the LCD Module on models with 3G functionality. Models that do not support 3G do not require the removal of the yellow and blue Antenna cables detailed below.

## LCD Module Disassembly Flowchart



### Screw List

Step	Screw	Quantity	Part No.
LCD Bezel	M2*4	4	86.S6802.001
LCD Panel	M2*4	2	86.S6802.001
LCD Brackets	M2*3	6	86.S6802.003

## Removing the LCD Bezel

1. See "Removing the LCD Module" on page 71.
2. Remove the four screw caps and screws from the LCD Bezel.

**NOTE:** The two center screw caps at the top of the bezel are for protection only.



Step	Size	Quantity	Screw Type
LCD Bezel	M2*4	4	

3. Starting from the inside right edge, pry the bezel away from the panel. Continue moving along the top, prying the bezel away from the LCD Module. If necessary, use a plastic pry to release the corners of the bezel.



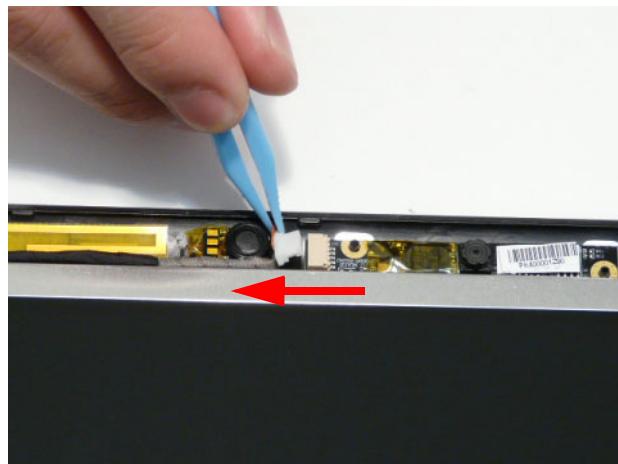
- 
4. Work down the left side as shown, then pry apart the bottom edge to remove the bezel.



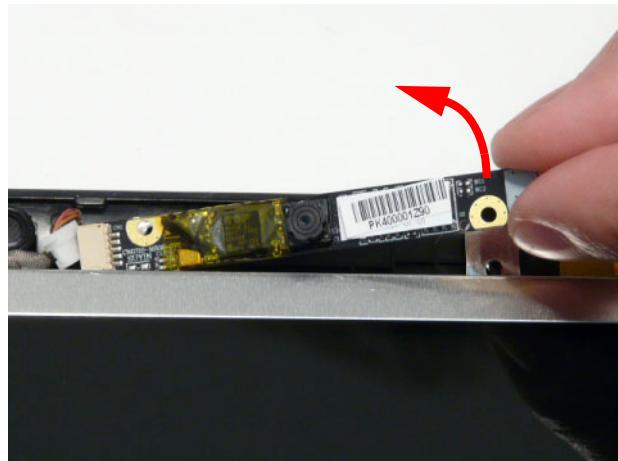
5. Lift up the bezel and remove it from the LCD Module.

## Removing the Camera Board

1. See "Removing the LCD Bezel" on page 76.
2. Disconnect the cable from the Camera Board as shown.



3. Remove the Camera Board from the LCD Module.



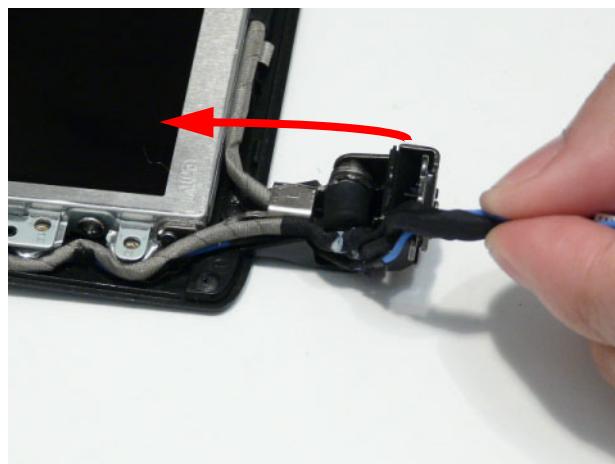
## Removing the LCD Panel

1. See "Removing the Camera Board" on page 78.
2. Remove the two securing screws from the LCD Panel.



Step	Size	Quantity	Screw Type
LCD Panel	M2*4	2	

3. Remove the LVDS cable from the cable channel in the bracket.

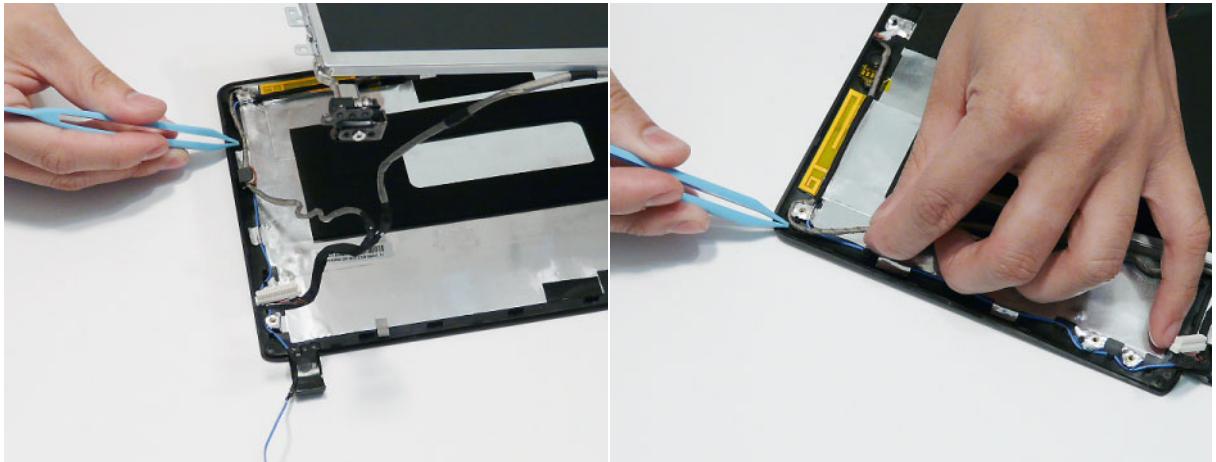


4. Lift the panel as shown to expose the LVDS and Microphone cables.

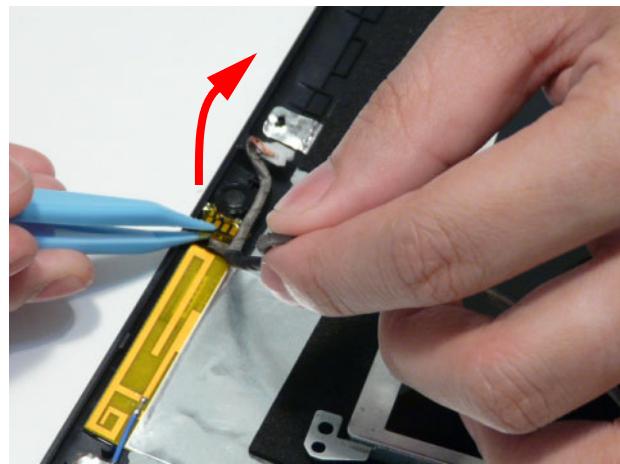
**IMPORTANT:** Do not remove the panel at this stage to avoid damaging the cables.



- 
5. Remove the Microphone cable from the cable channel as shown. Ensure that the cable is free from all cable clips.



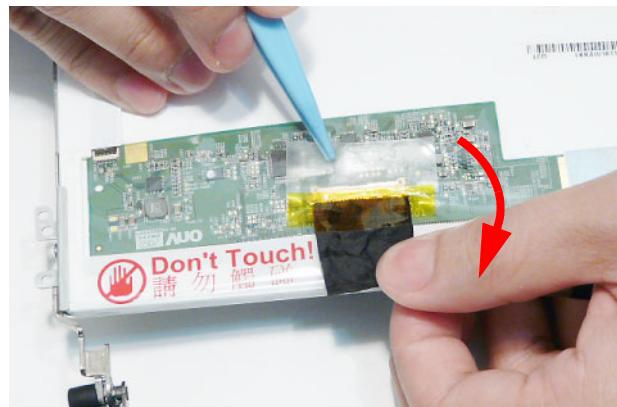
6. Lift the Microphone Module upward to detach the adhesive holding it in place.



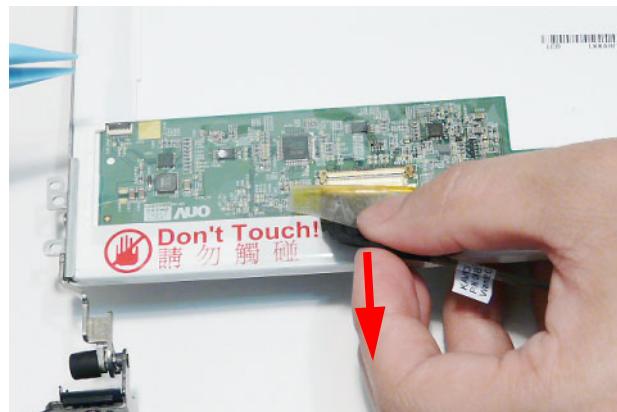
7. Remove the LCD Panel from the LCD Module.

## Removing the LCD Brackets and FPC Cable

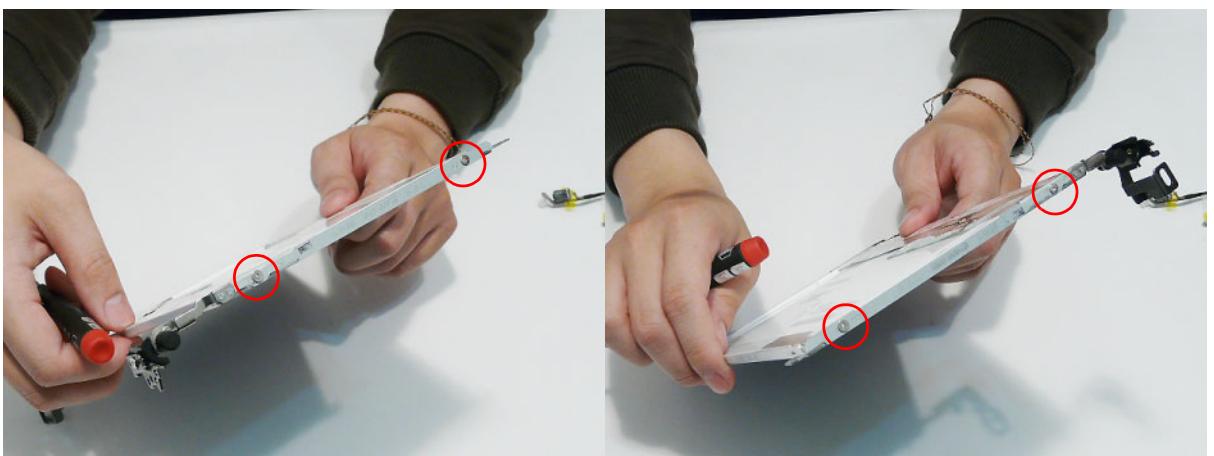
1. See "Removing the LCD Panel" on page 79.
2. Turn the LCD panel over on a clean surface. Carefully lift the adhesive tape securing the cable connector to the LCD Panel.



3. Hold the adhesive tape clear of the LCD Panel and disconnect the LCD cable as shown.



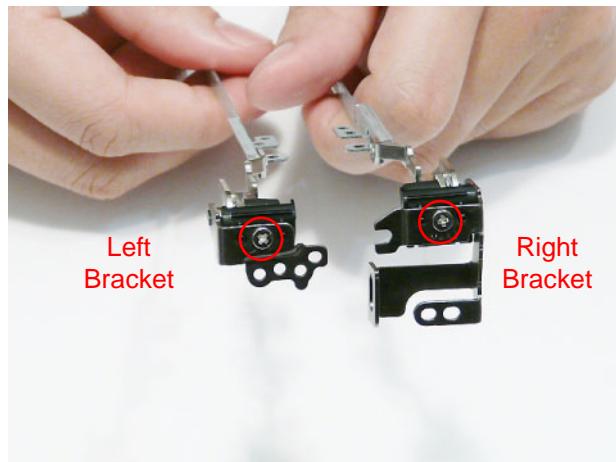
4. Remove the four securing screws (two each side) from the LCD Brackets.



Step	Size	Quantity	Screw Type
LCD Brackets	M2*3	4	

5. Remove the two screws securing the Hinge Covers to the brackets.

**NOTE:** The LCD Brackets are not identical. Ensure that the correct bracket is used during reassembly.

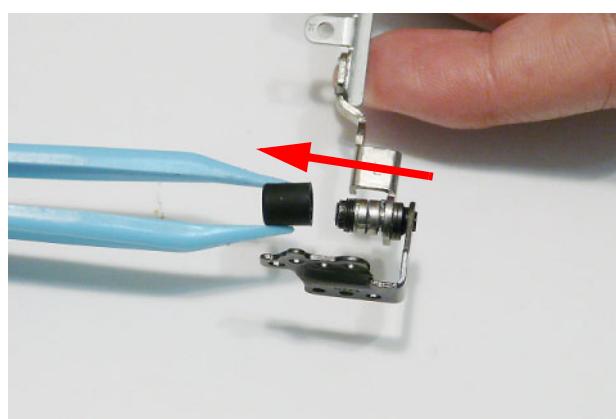


Step	Size	Quantity	Screw Type
Hinge Covers	M2*3	2	

6. Remove the Hinge Covers from the left and right brackets as shown.



**NOTE:** If the LCD Brackets are replaced, ensure that the rubber cable connectors are removed from the faulty brackets and installed on the replacements.



## Removing the Antennas

**IMPORTANT:** The LCD Module configuration differs depending on supported functions. Only the 3G model is disassembled in this procedure, though the method is the same.

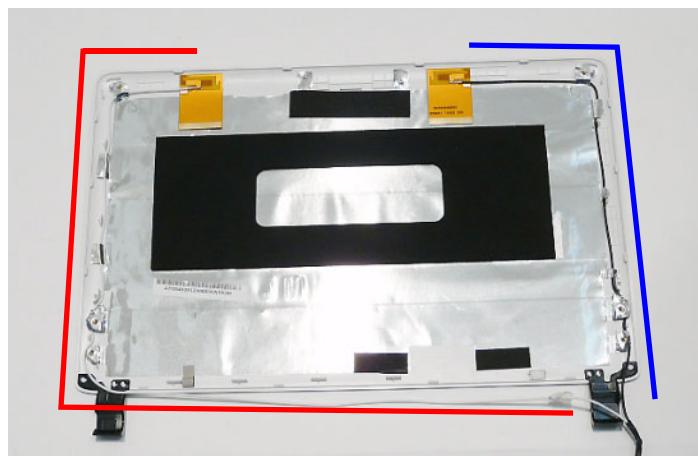
For 3G enabled models, the LCD Module appears as follows when the LCD Panel is removed:

- Blue callout—Main 3G Antenna cable
- Yellow callout—Aux 3G Antenna cable
- Red callout—Main and Aux WLAN Antennas



For WLAN only models, the LCD Module appears as follows when the LCD Panel is removed:

- Blue callout—Main WLAN Antenna cable
- Red callout—Aux WLAN Antenna cable

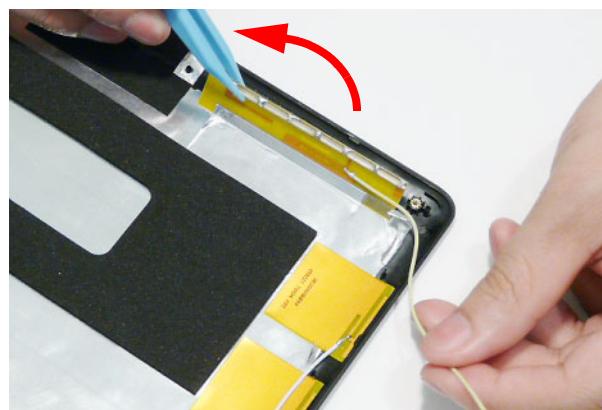


1. See “Removing the LCD Panel” on page 79.
2. Lift all the adhesive strips securing the yellow 3G Antenna cable in place and remove the cable from the cable channel.

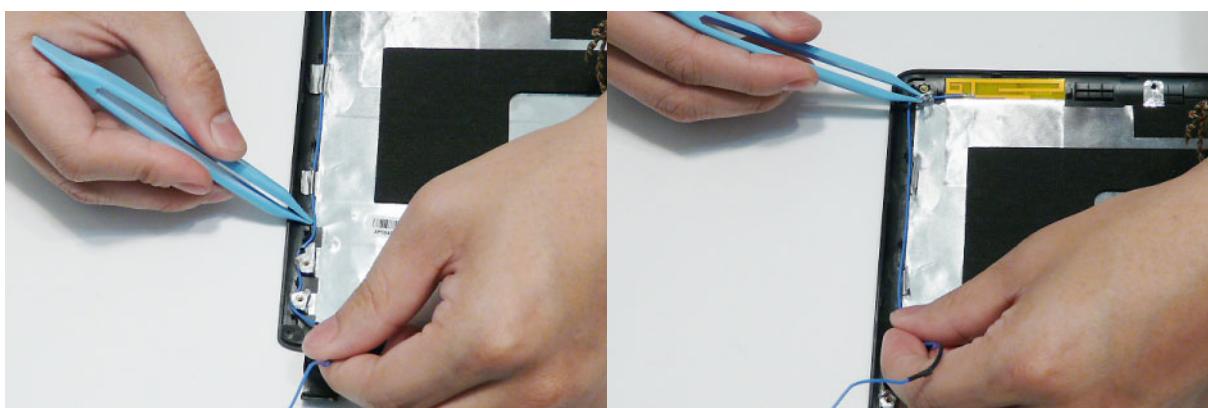


3. Carefully pry up the Antenna pad, as shown, and remove the pad from the LCD Module.

**IMPORTANT:** A strong adhesive is used to secure the Antenna pad in place. Take care not to bend the pad during removal.



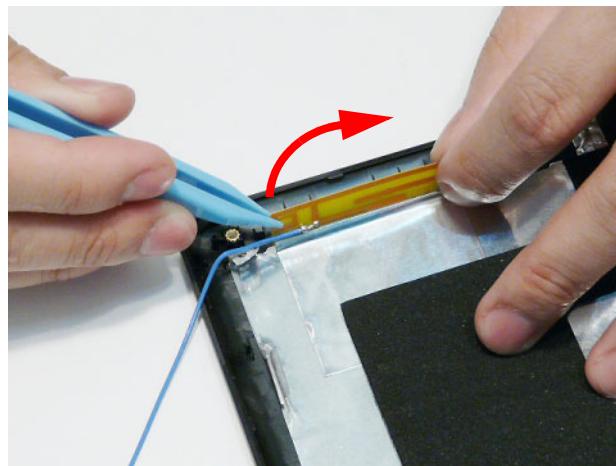
4. Lift all the adhesive strips securing the blue 3G Antenna cable in place and remove the cable from the cable channel.



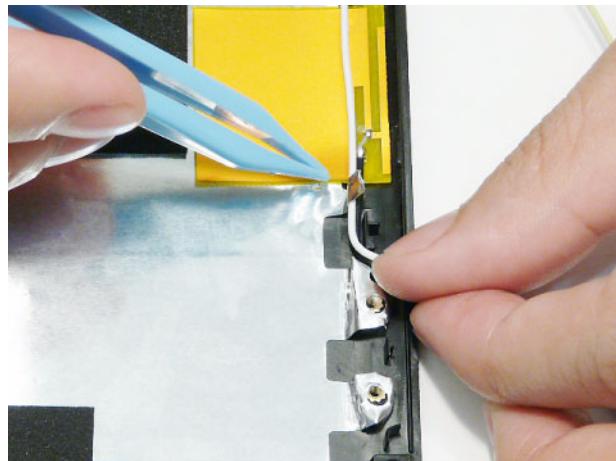
---

5. Carefully pry up the Antenna pad, as shown, and remove the pad from the LCD Module.

**IMPORTANT:** A strong adhesive is used to secure the Antenna pad in place. Take care not to bend the pad during removal.

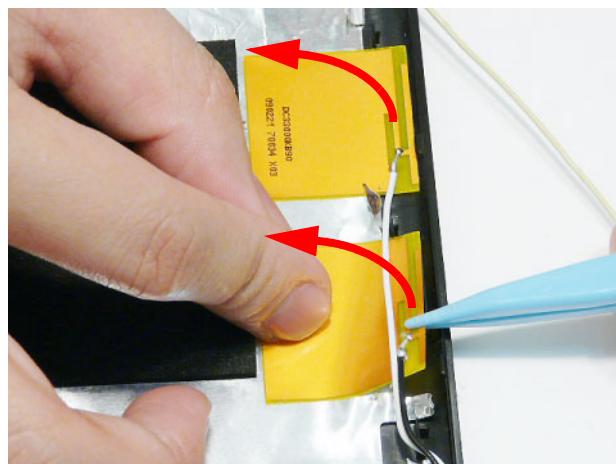


6. Lift all the adhesive strips securing the white and black WLAN Antenna cables in place and remove the cable from the cable channel.



7. Carefully pry up the Antenna pads, as shown, and remove the pads from the LCD Module.

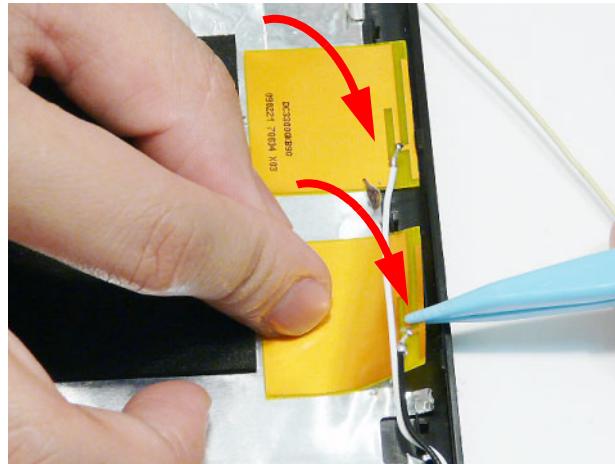
**IMPORTANT:** A strong adhesive is used to secure the Antenna pads in place. Take care not to bend the pads during removal.



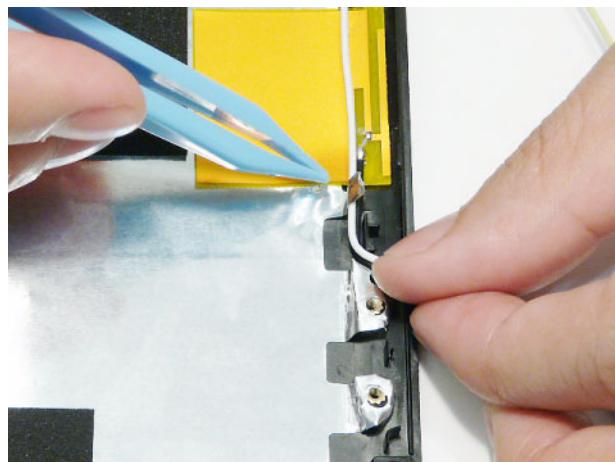
# LCD Module Reassembly Procedure

## Replacing the Antennas

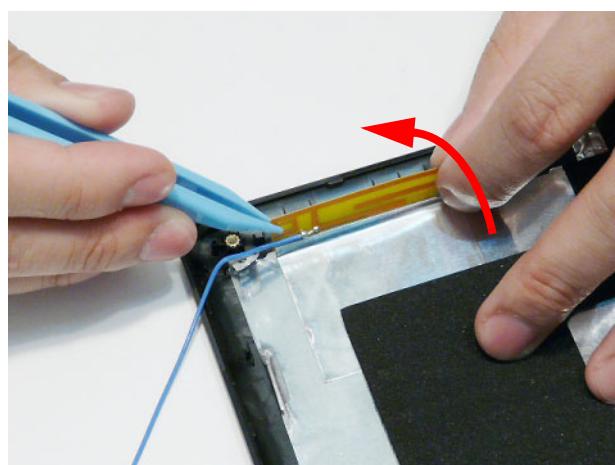
1. Remove the protective covering on the Antenna pads. Place the WLAN Antenna pads in the LCD Module and press down to secure the adhesive in place.



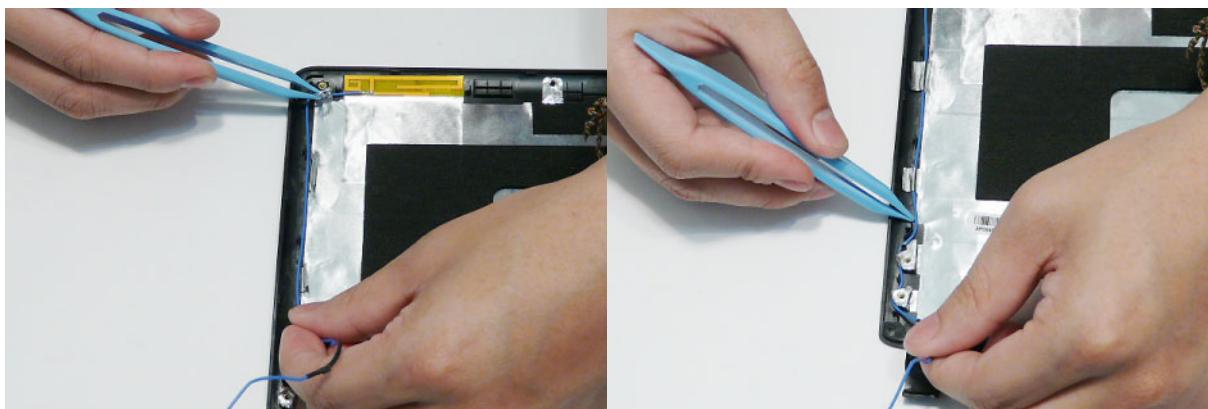
2. Run the cables along the edges of the LCD Module using all the available adhesive securing strips.



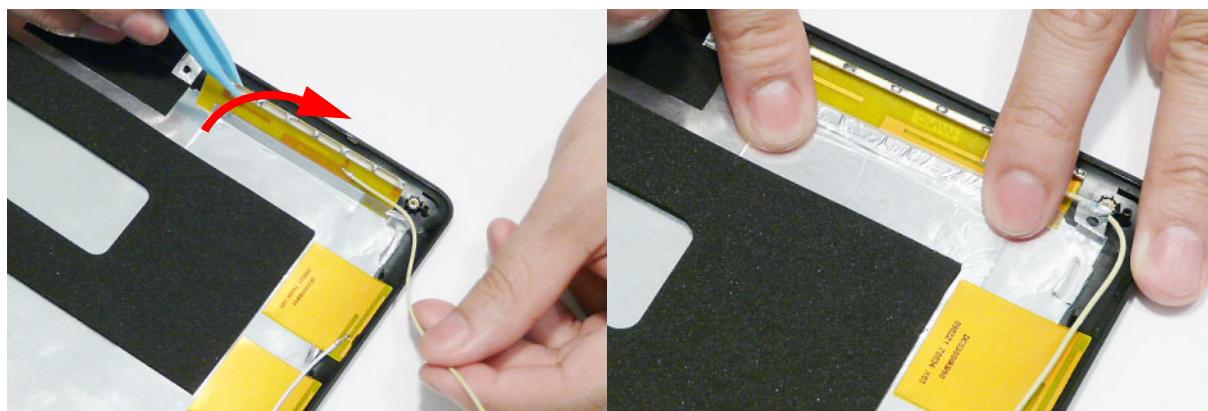
3. Remove the protective covering on the Main 3G Antenna pad. Place the pad in the LCD Module and press down to secure the adhesive in place.



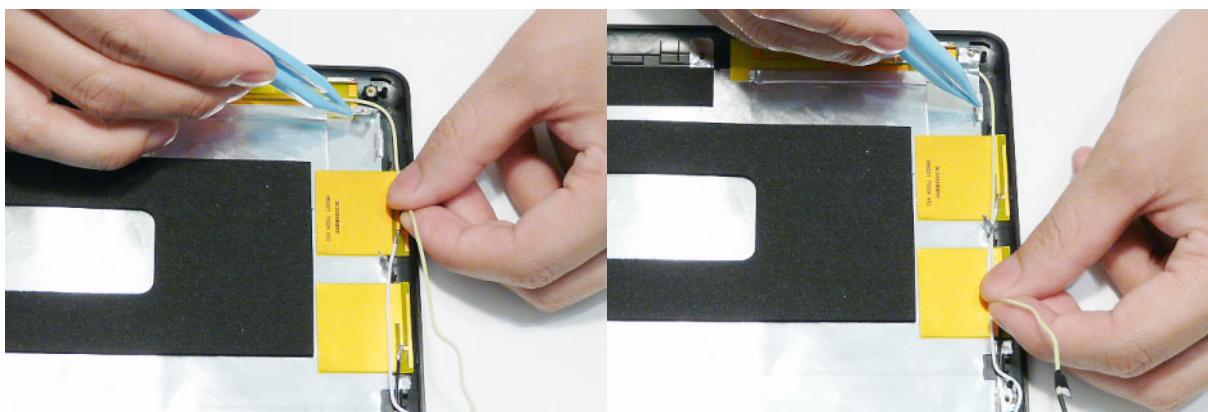
- 
4. Run the cables along the edges of the LCD Module using all the available adhesive securing strips.



5. Remove the protective covering on the Auxiliary 3G Antenna pad. Place the pad in the LCD Module and press down to secure the adhesive in place.



6. Run the cables along the edges of the LCD Module using all the available adhesive securing strips.



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**NOTE:** The LCD Module appears as shown when the Antennas are replaced correctly.

**3G and WLAN Models**

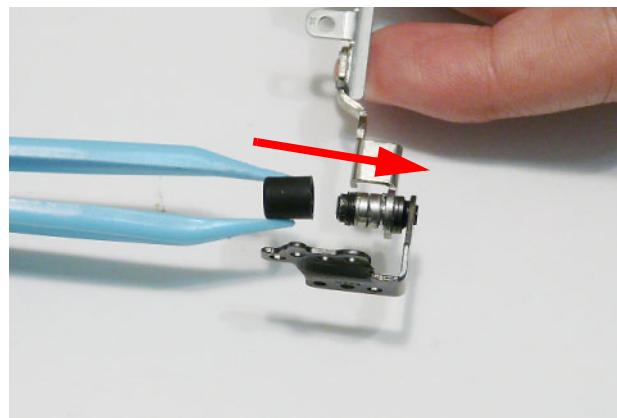


**WLAN Only Models**



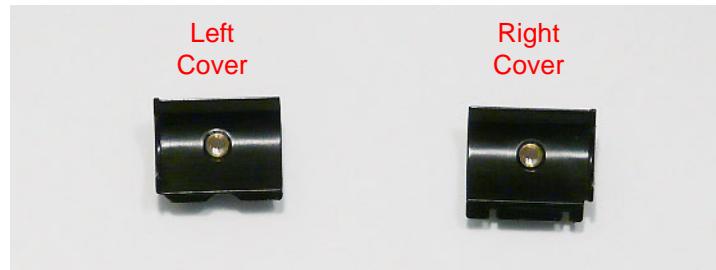
## Replacing the LCD Cable and Brackets

**NOTE:** If the LCD Brackets were replaced, ensure that the rubber cable connectors are removed from the faulty brackets and installed on the replacements.



1. Replace the Hinge Covers on the left and right LCD Brackets.

**IMPORTANT:** The left and right Hinge Covers are not identical; the left cover has a single cut out whereas the right cover has two cutouts. Ensure that the correct cover is used during reassembly.

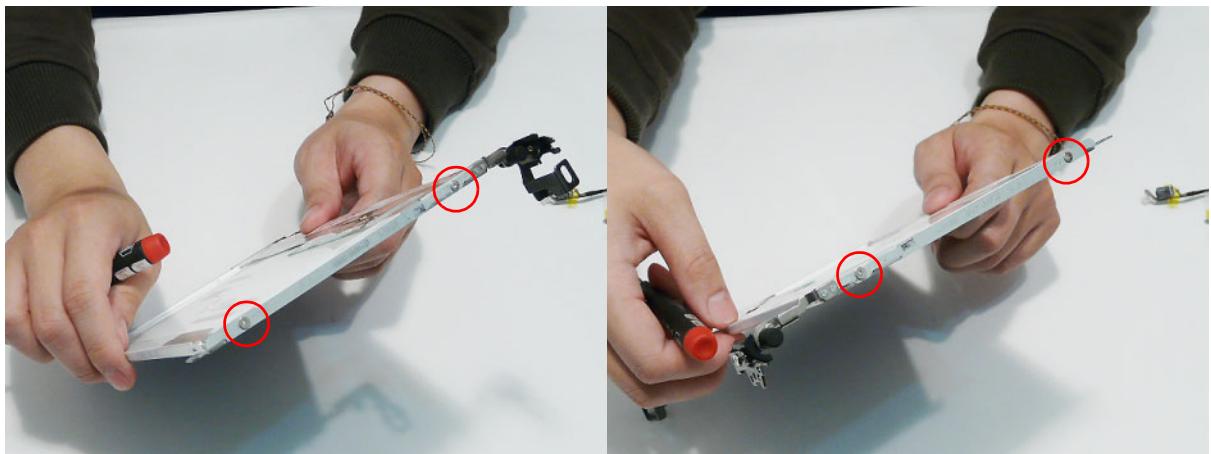


2. Replace the two screws securing the Hinge Covers to the brackets.

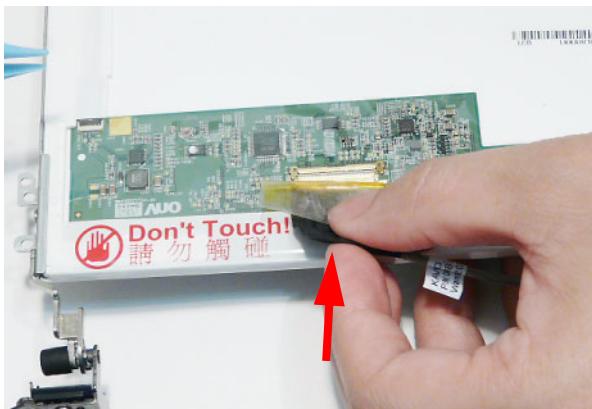
**NOTE:** The LCD Brackets are not identical. Ensure that the correct bracket is used during reassembly.



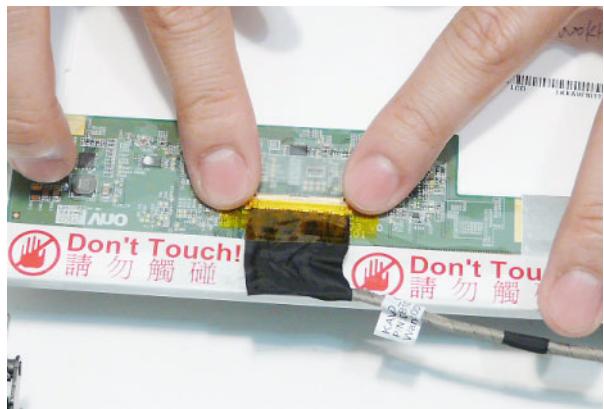
3. replace the four screws (two each side) securing the LCD Brackets to the LCD Panel.



4. Insert the LCD Cable into the panel connector as shown.



5. Secure the connector by replacing the adhesive strip as shown.



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**IMPORTANT:** Ensure that the LCD Cable runs as shown to avoid trapping when the Bezel is replaced.

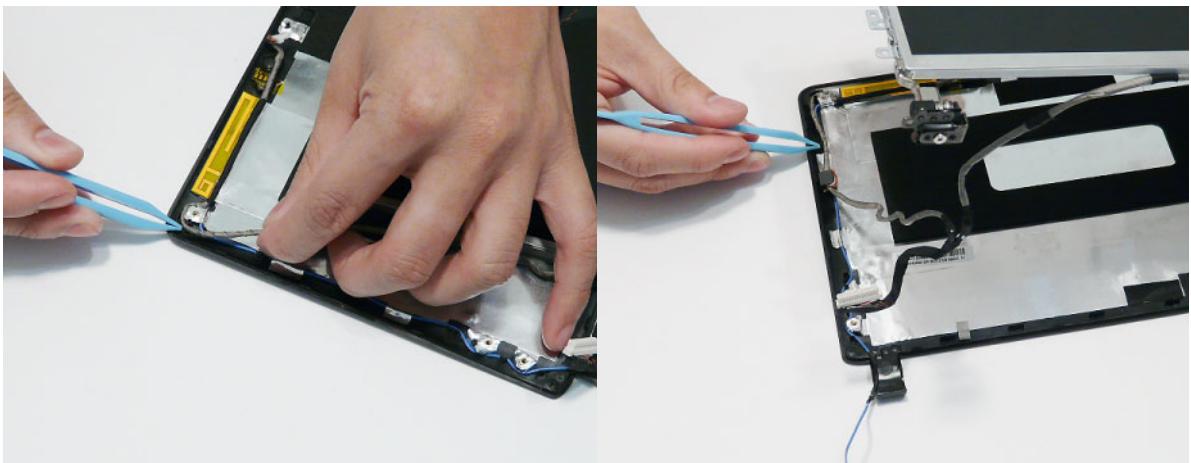


## Replacing the LCD Panel

1. Place the Microphone Module in to the LCD Module and press down to secure the adhesive holding it in place.



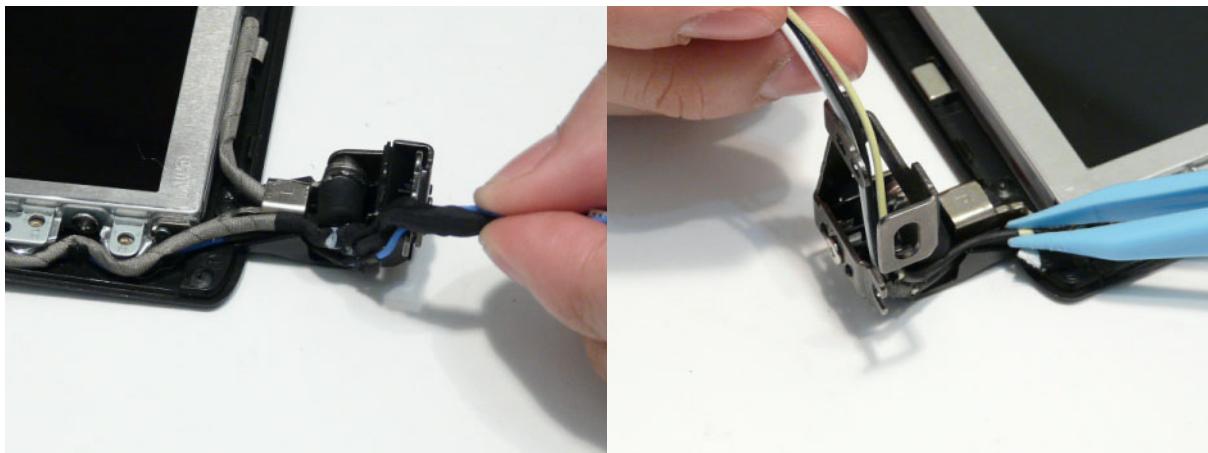
2. Run the Microphone cable down the side of the LCD Module as shown, using all available adhesive and cable clips.



3. Replace the LCD Panel top edge first as shown. Lower the Panel in to the LCD Module, ensuring the LCD cables are not trapped between the panel and the casing.



- 
4. Ensure the cables and Antennas pass through the hinge wells as shown.

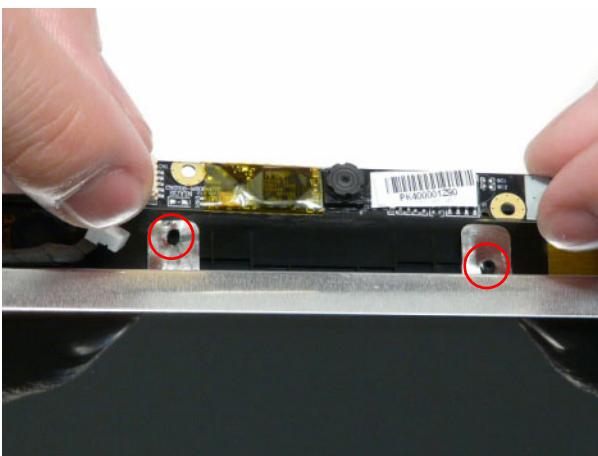


5. Replace the two securing screws.

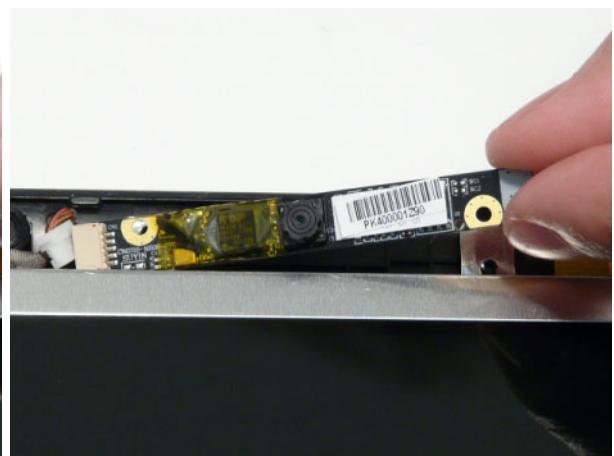


## Replacing the Camera Board

1. Align the locating slots on the Camera Module with the locating pins on the LCD Module.

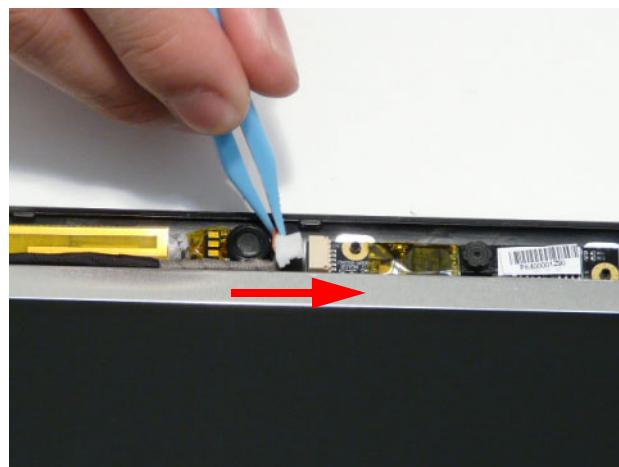


2. Place the Camera Module in the LCD Module and press down to secure it in place.



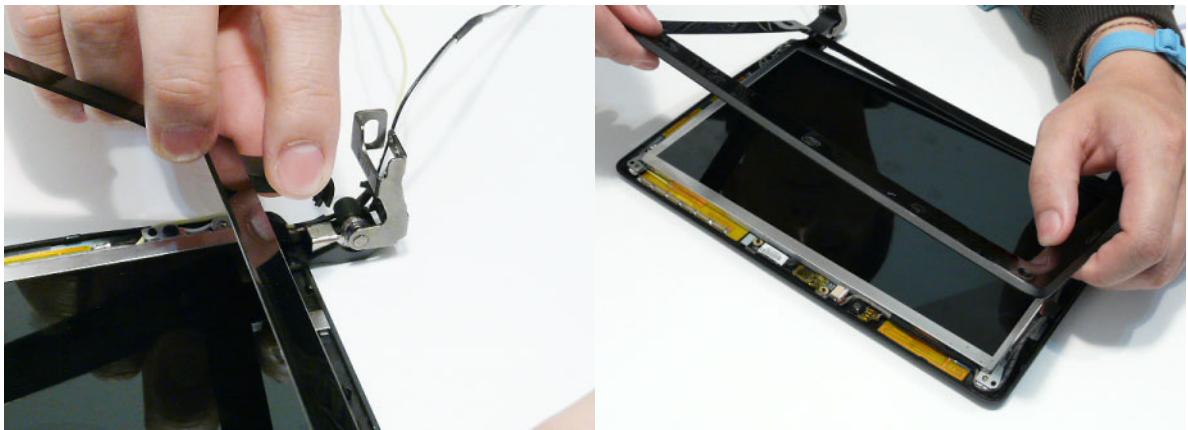
---

3. Connect the Camera cable as shown.



## Replacing the LCD Bezel

1. Replace the bezel bottom edge first as shown. Ensure that the cables are not trapped between the bezel and LCD Module and pass through the hinge wells.



2. Press down around the edges of the bezel until there are no gaps between the covers.



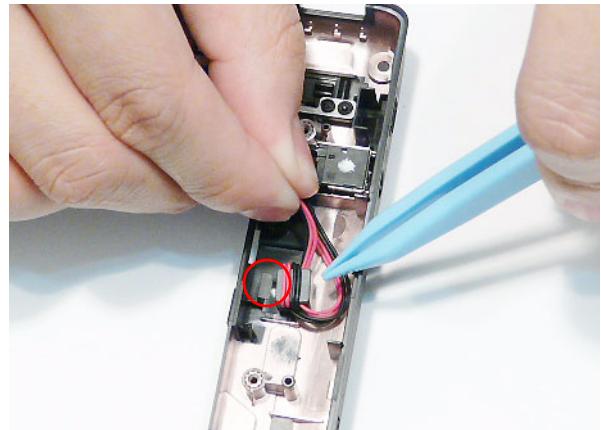
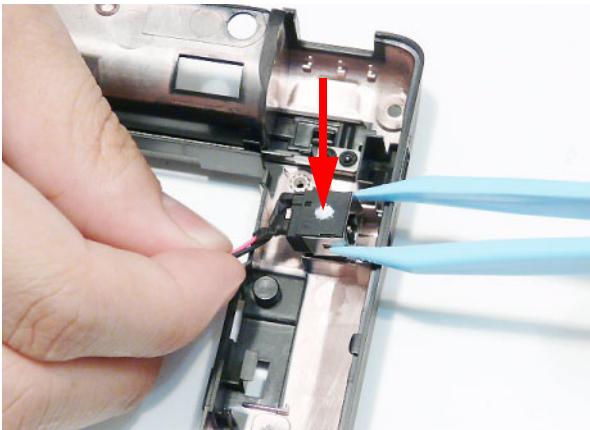
3. Replace the four screws and screw caps.



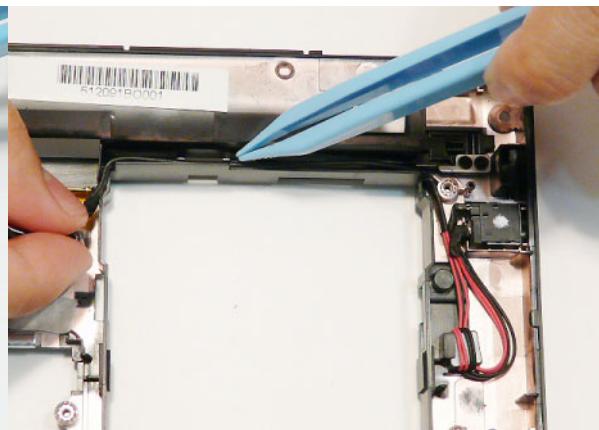
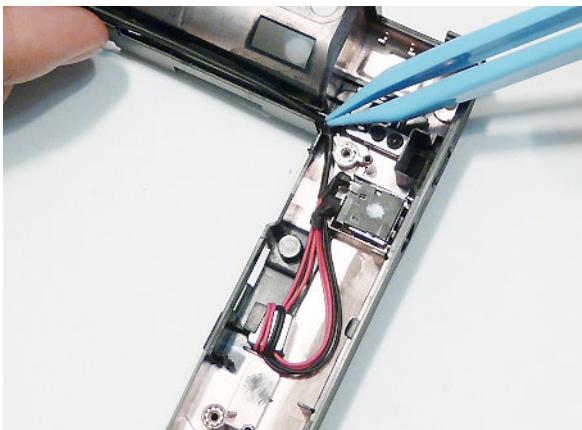
# Main Module Reassembly Procedure

## Replacing the AC Power Jack

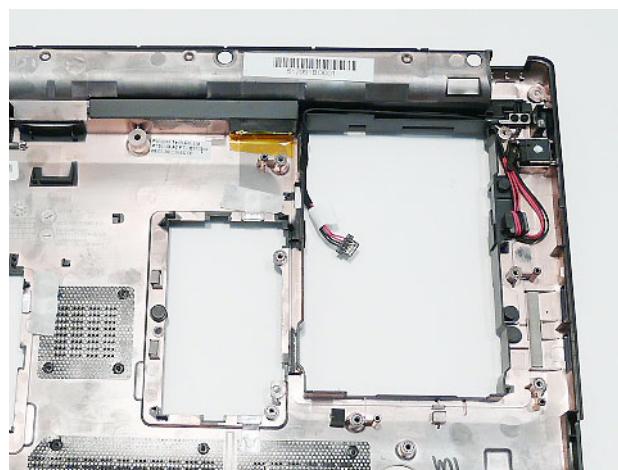
1. Place the AC Power Jack in the Lower Cover as shown. Press down to secure it in place.
2. Place the cable bundle in to the Lower Cover, ensuring that the bundle is held in place under the securing clip.



3. Run the cable around the HDD bay as shown using all available cable clips.

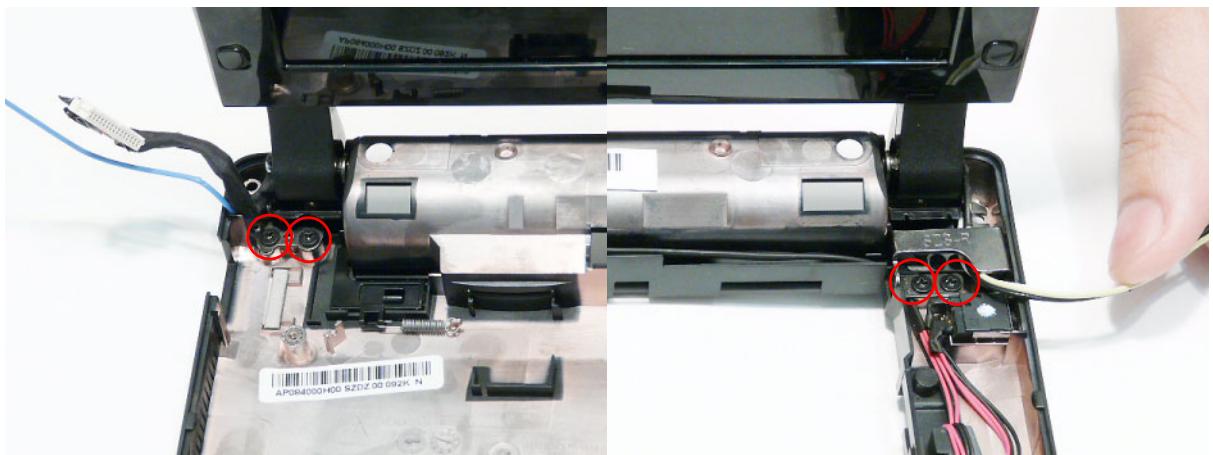
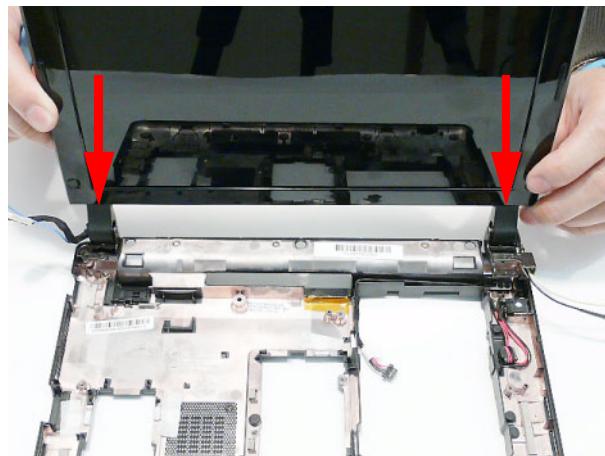


4. The AC Power cable runs as shown when correctly installed.

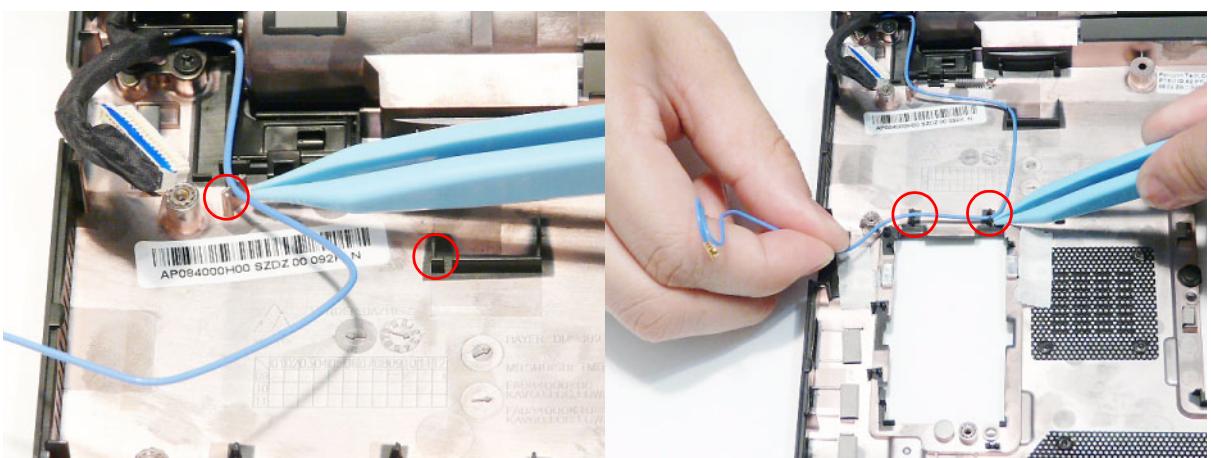


## Replacing the LCD Module

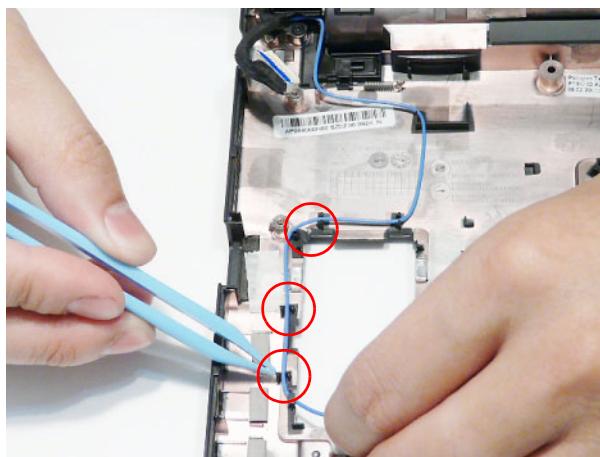
1. Place the LCD Module on the Lower Cover and secure it in place with the four screws.



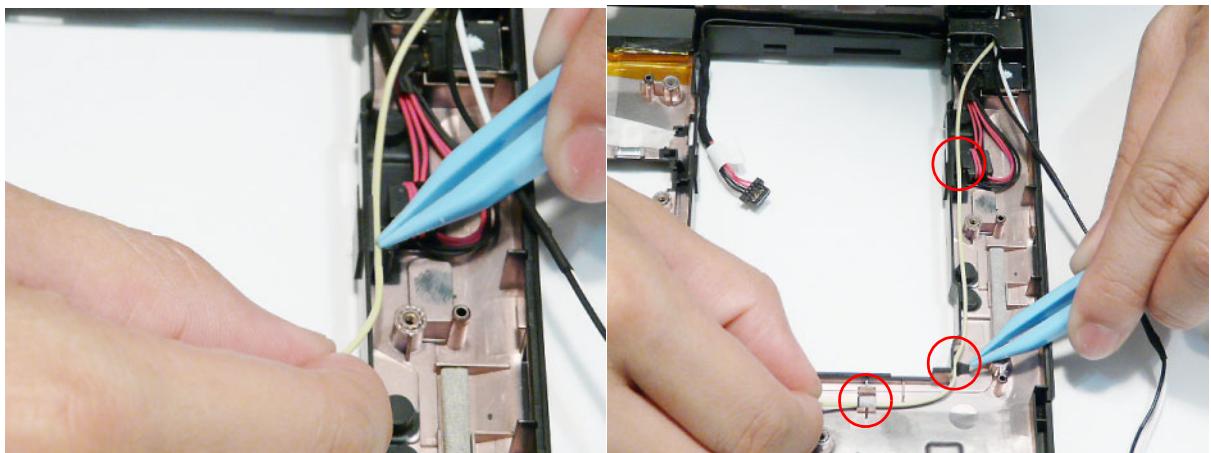
2. Run the blue 3G cable along the cable channel as shown using all available cable clips.



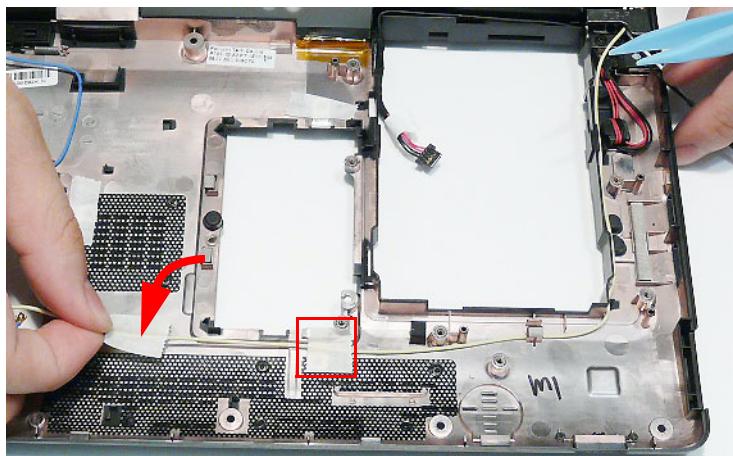
- 
3. Run the cable as shown in to the 3G bay using all available cable clips.



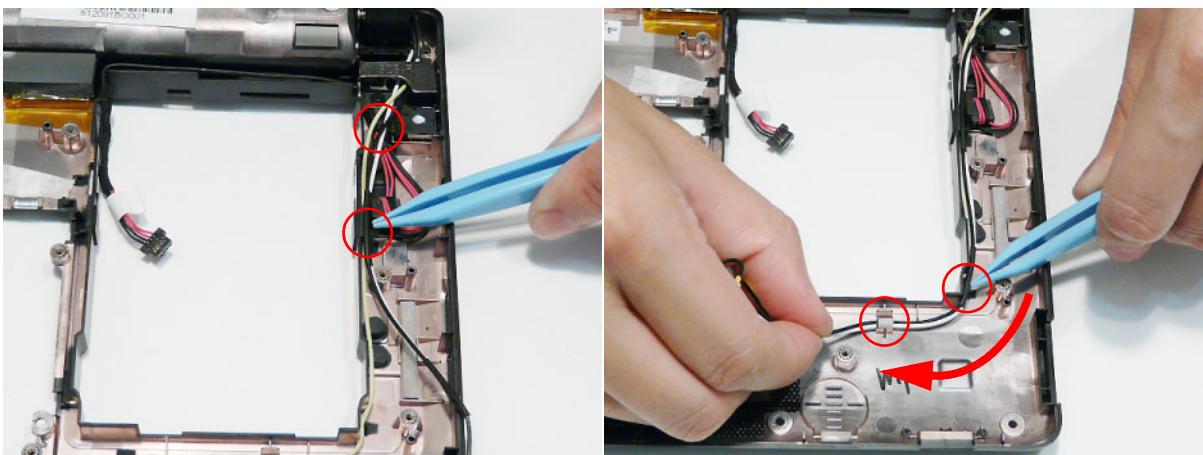
4. Run the yellow 3G cable along the cable channel as shown using all available cable clips.



5. Run the cable as shown in to the 3G bay and secure it in place with adhesive strips.

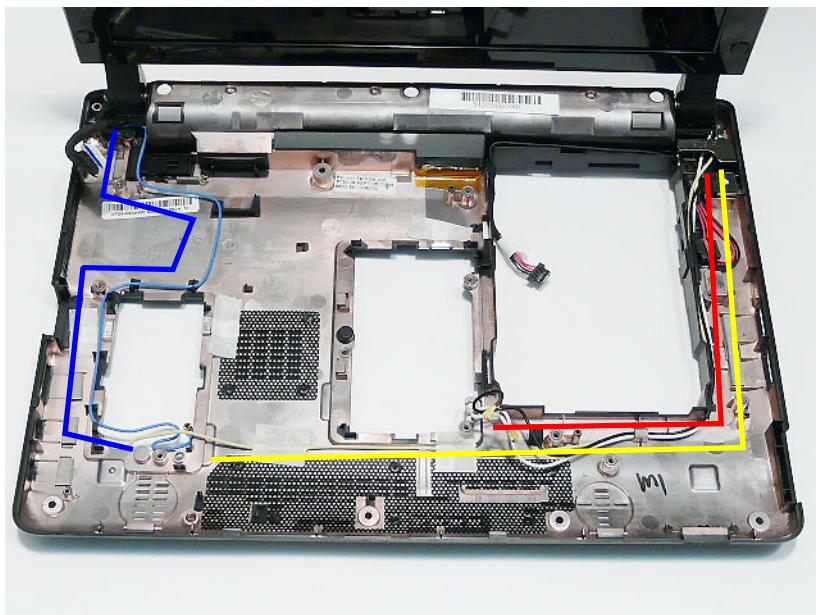


6. Run the WLAN Antennas over the yellow 3G Antenna, using the same cable channel and clips.



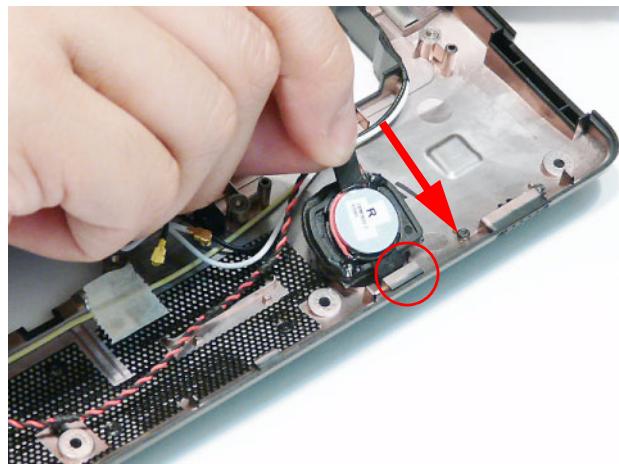
7. The Lower Cover appears as follows when all the LCD cables and Antennas are correctly placed.

- Blue callout—Main 3G Antenna cable
- Yellow callout—Aux 3G Antenna cable
- Red callout—Main and Aux WLAN Antennas

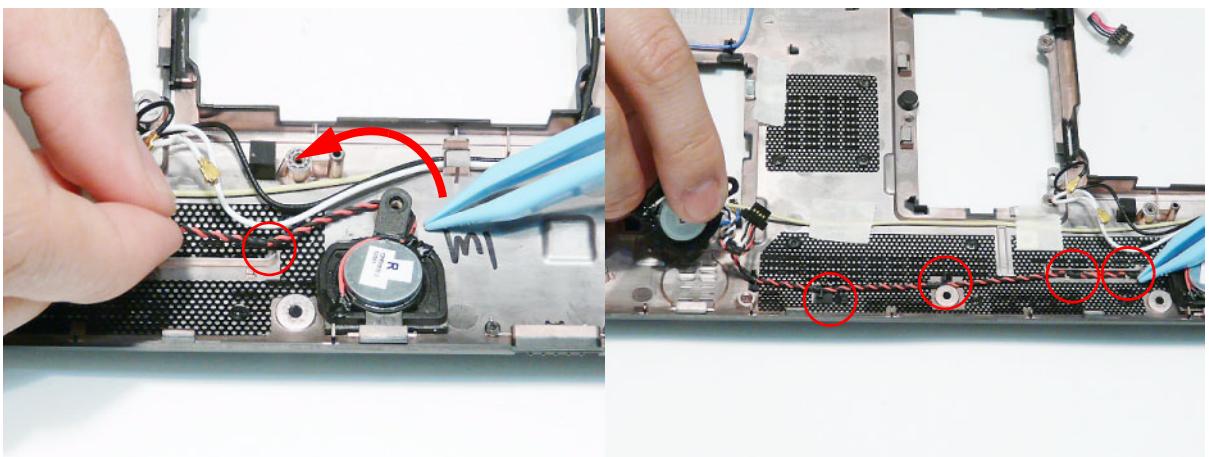


## Replacing the Speaker Module

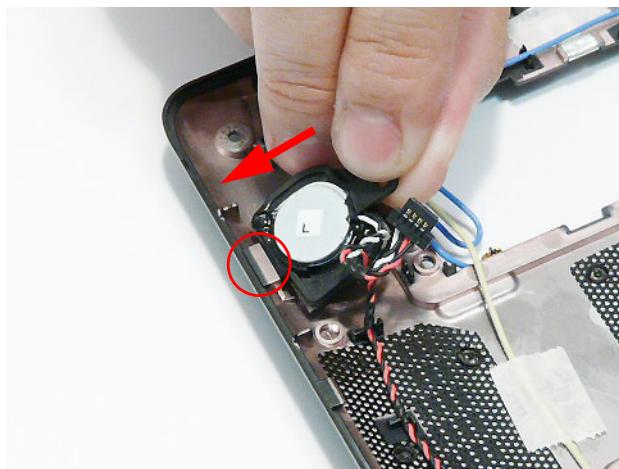
1. Replace the right Speaker in the Lower Cover bottom edge first to engage the securing clip.



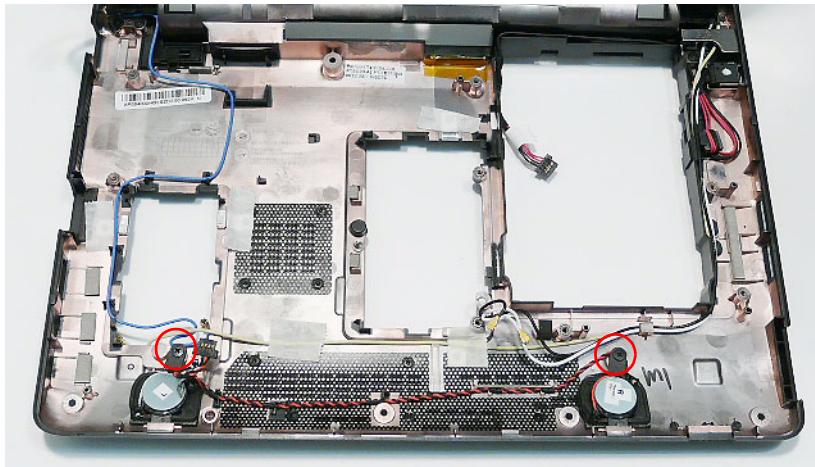
2. Run the speaker cable behind the screw column and along the front edge of the Lower Cover as shown. Ensure that the cable is secured using all the available cable clips.



3. Replace the left Speaker in the Lower Cover bottom edge first to engage the securing clip.



- 
4. Replace the two securing screws (one in each Speaker).



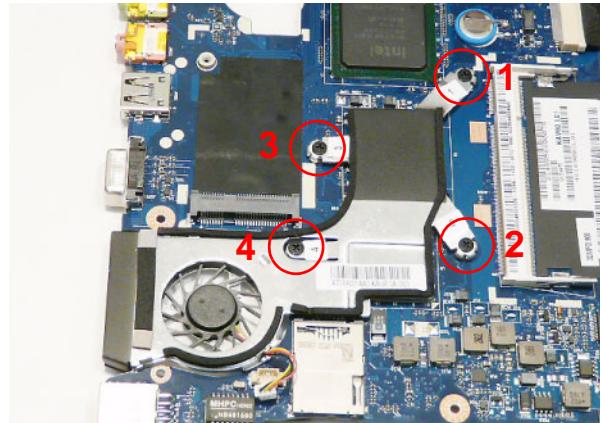
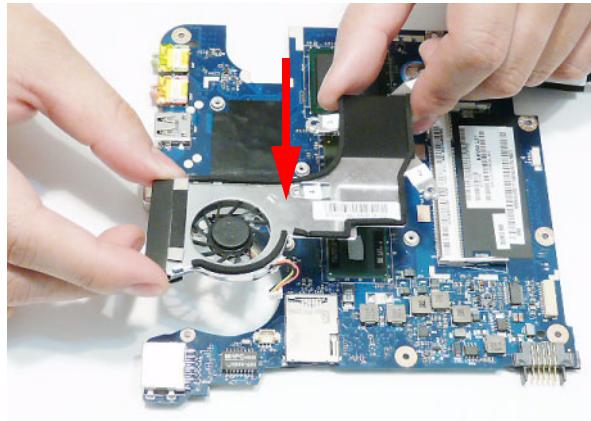
## Replacing the Thermal Module

**IMPORTANT:** Ensure all heat pads are in place before replacing the Thermal Module.

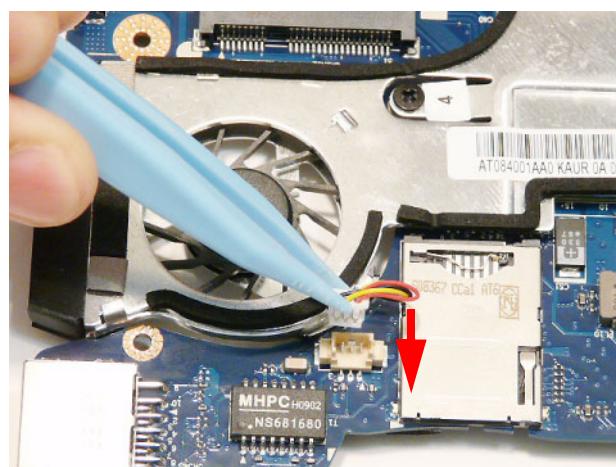
The following thermal pads are approved for use:

- Eapus XR-PE

1. Align the screw holes on the Thermal Module and Mainboard and replace the module.
2. Replace the four securing screws in the Thermal Module in numerical order from 1 to 4.

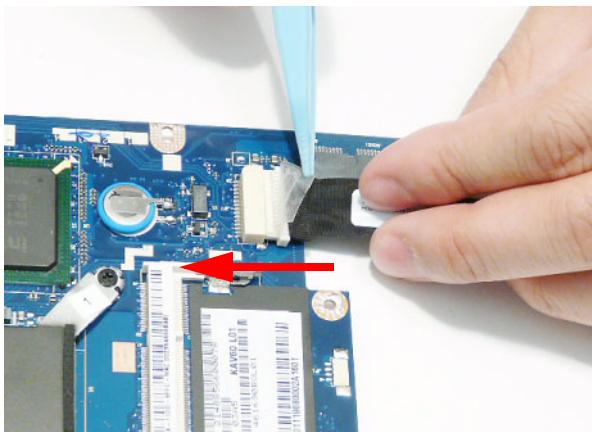


3. Connect the Fan cable to the Mainboard as shown.

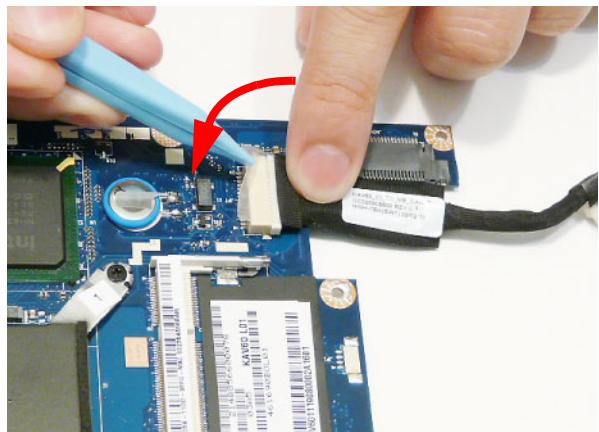


## Replacing the Mainboard

1. Connect the USB Board cable to the Mainboard.



2. Replace the adhesive to secure the cable in place.



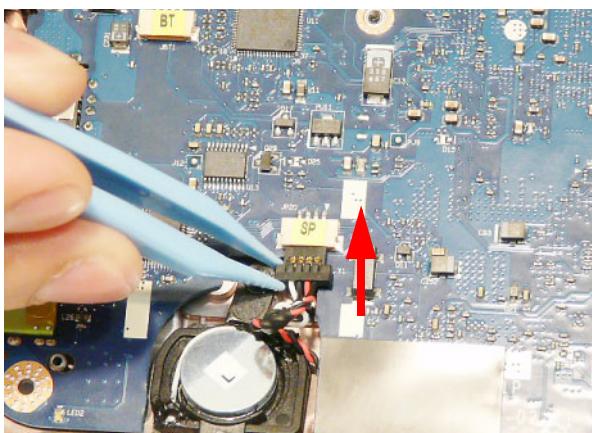
3. Turn the Mainboard over and insert it into the Lower Cover left side first to ensure the I/O ports pass through the casing.



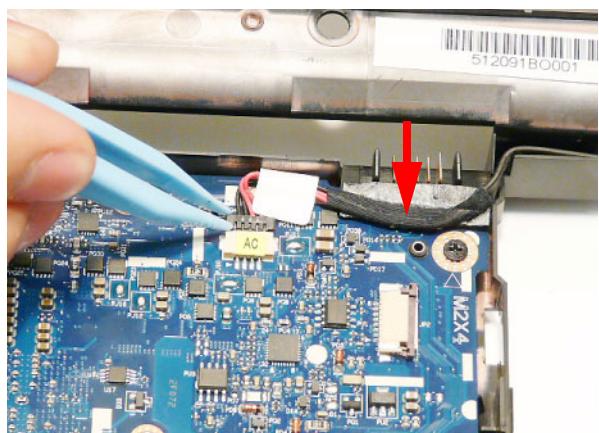
4. Replace the single screw securing the Mainboard to the Lower Cover.



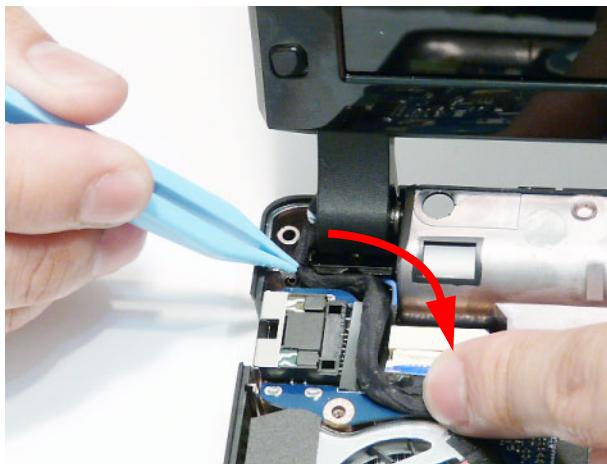
5. Connect the Speaker cable to the Mainboard.



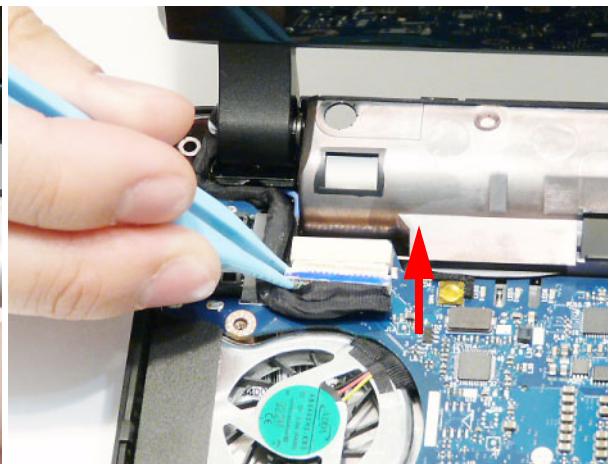
6. Connect the AC Power cable to the Mainboard and press down as indicated to secure the cable in place.



- 
- 7.** Run the LVDS cable along the cable channel as shown.

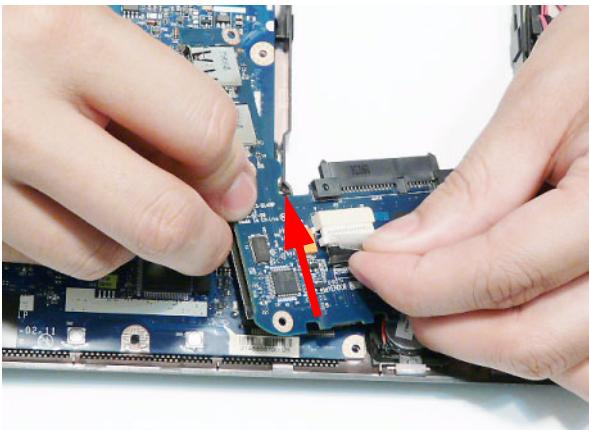


- 8.** Connect the LVDS cable to the Mainboard.



## Replacing the USB Board

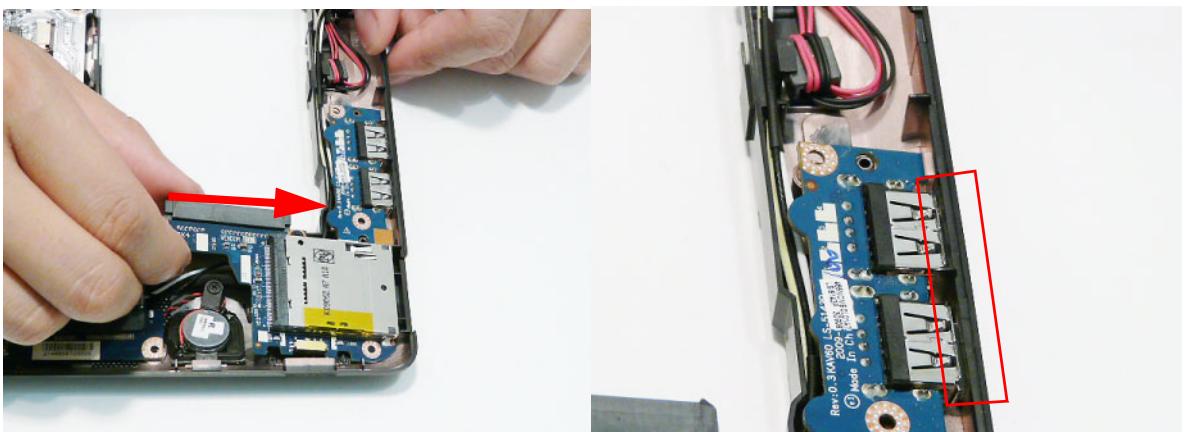
1. Connect the USB cable to the connector on the underside of the USB Board.



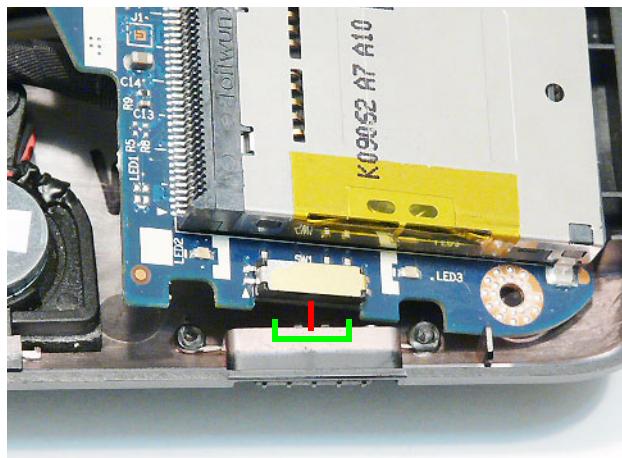
2. Replace the adhesive securing the USB cable in place.



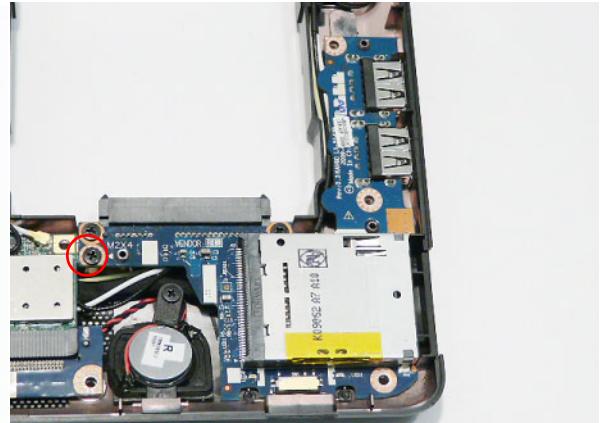
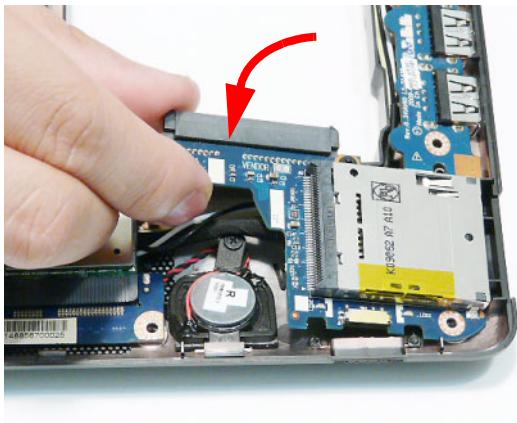
3. Turn the USB Board over and insert it in to the Lower Cover, right side first. Ensure that the USB ports are accessible through the casing.



**IMPORTANT:** Ensure that the Wireless Function Switch (red callout) is correctly seated in the spacer (green callout).

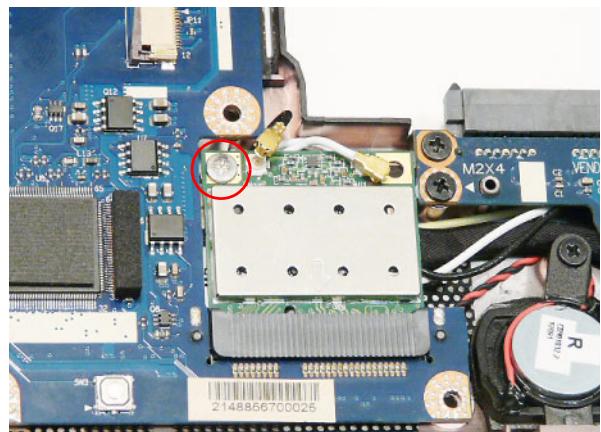
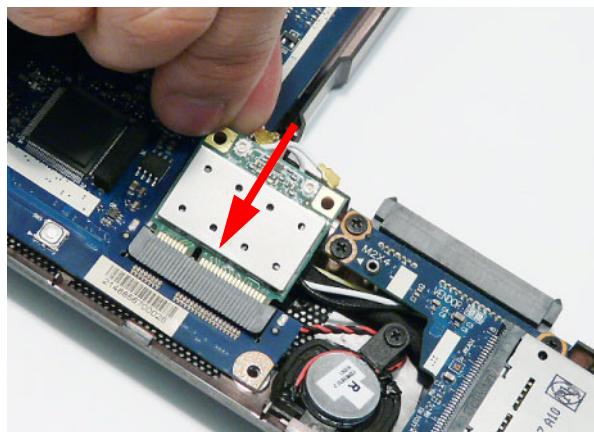


- 
4. Lower the USB Board in to the Lower Cover and replace the single securing screw.



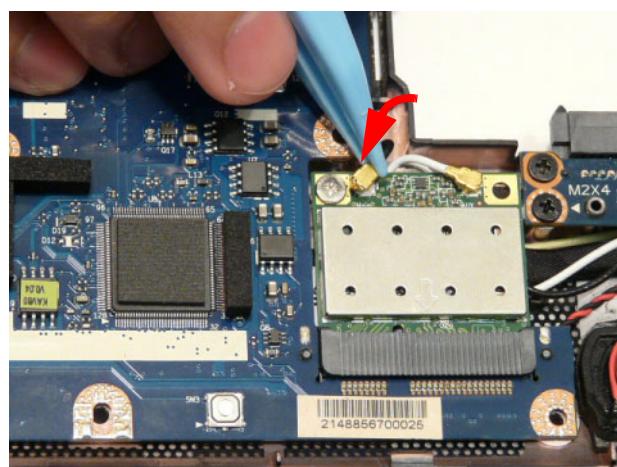
## Replacing the WLAN Board

1. Insert the WLAN Board in to the Mainboard socket,      2. Replace the single securing screw.



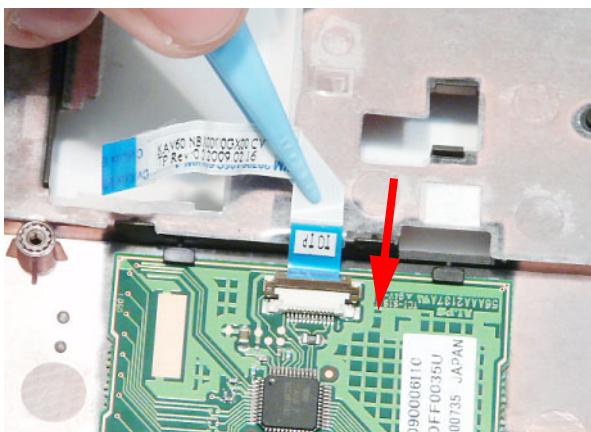
3. Connect the WLAN Antennas to the WLAN Board terminals.

**NOTE:** Cable placement is Black to the MAIN terminal (left) and White to the AUX terminal (right).

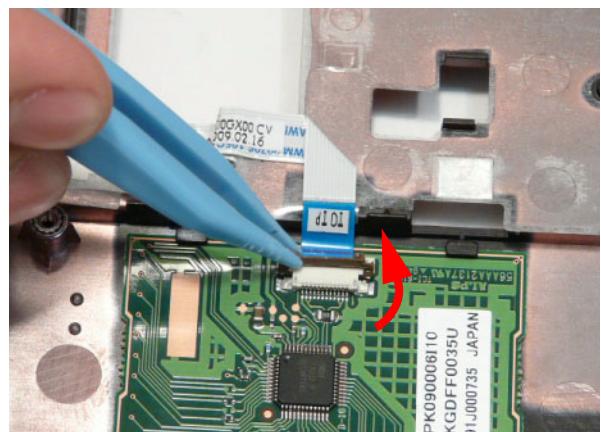


## Replacing the TouchPad FFC

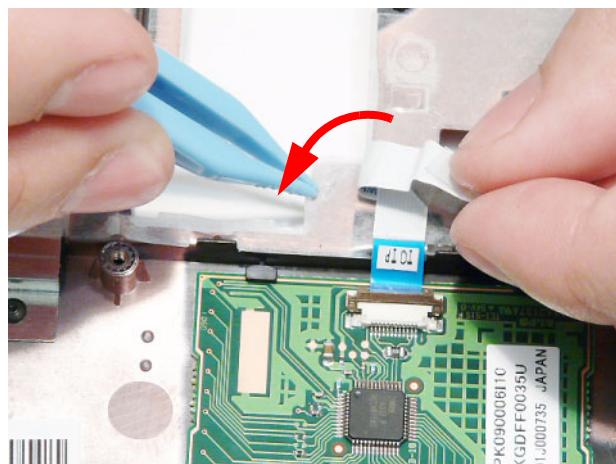
1. Insert the FFC in to the TouchPad connector.



2. Close the locking latch to secure the FFC in place.

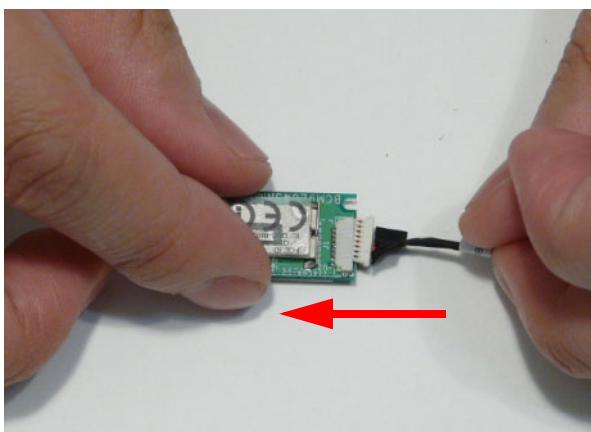


3. Press the FFC down on the Upper Cover to secure it in place.

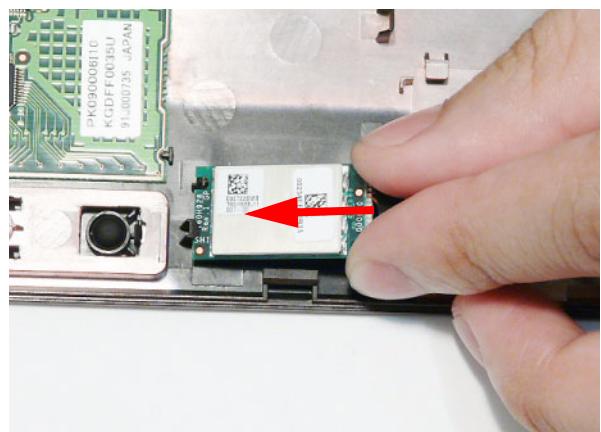


## Replacing the Bluetooth Module

1. Connect the Bluetooth cable to the Bluetooth Module.

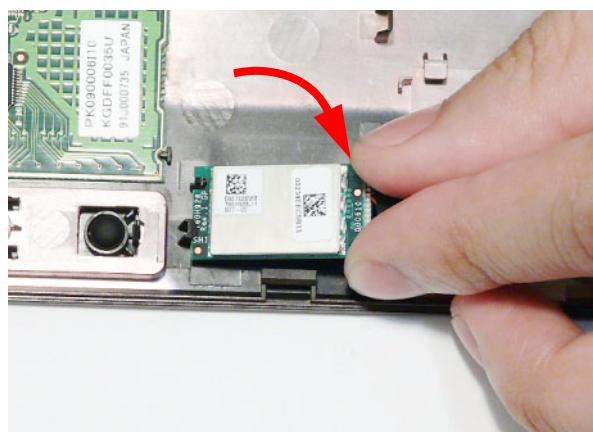


2. Place the Bluetooth Module in the Lower Cover, left side first as shown to engage the securing clips.

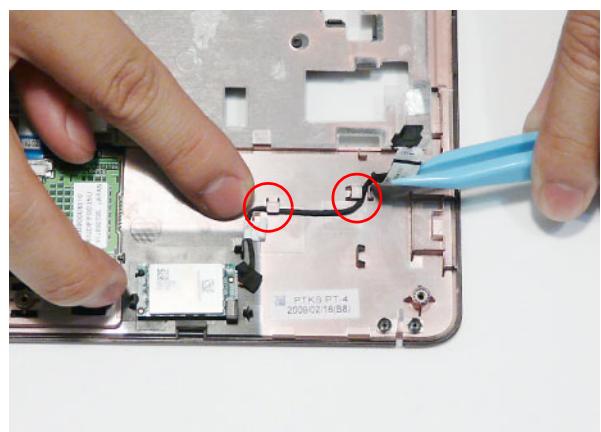


- 
3. Press the Bluetooth Module down to secure it in place.

**NOTE:** The Bluetooth Module is held in place by a single screw (M2\*3) on some models.

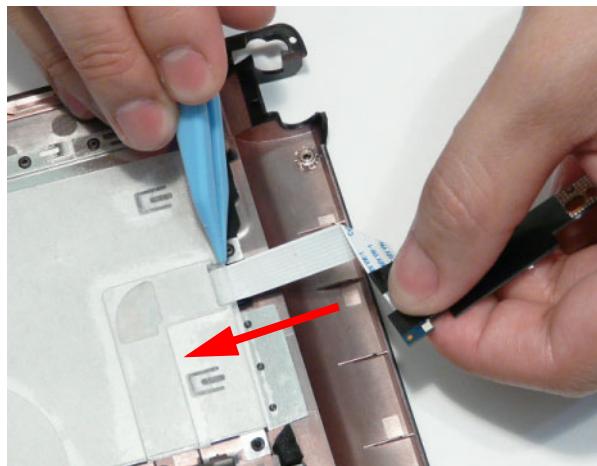


4. Run the Bluetooth cable along the cable channel as shown using all available cable clips.



## Replacing the Power Board

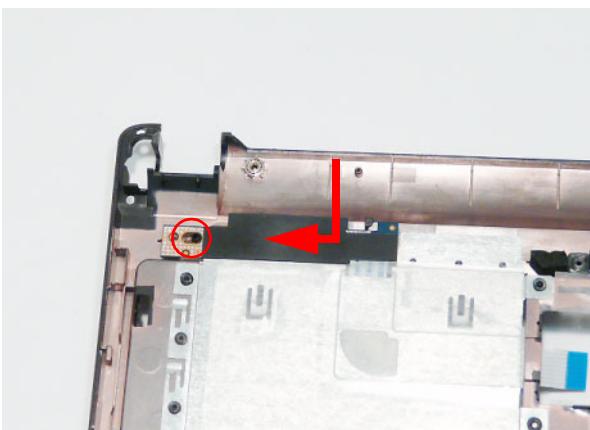
1. Insert the Power Board FFC under the mylar cover as shown.



2. Pull the FFC through the Upper Cover until none of the FFC is visible from the underside.



3. Place the Power Board in the Upper Cover and slide it to the left to engage the securing clips.



4. Replace the single securing screw to secure the board to the Upper Cover.



- 
5. Turn the cover over and run the FFC along the Upper Cover and press down to secure the adhesive in place.



## Replacing the Upper Cover

1. Place the Upper Cover on the Lower Cover rear edge first as shown.

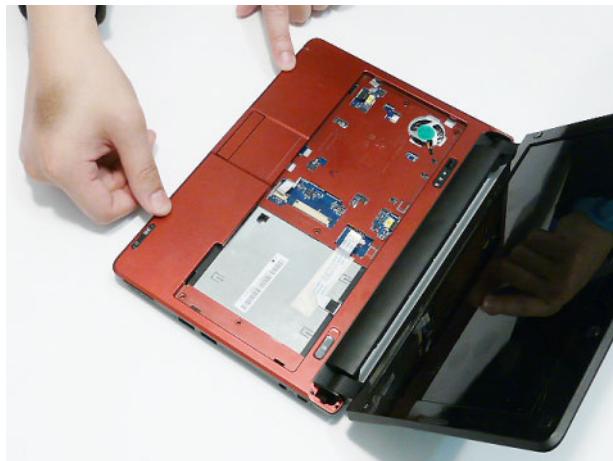


2. Press down the Upper Cover at either side to snap it in to place.



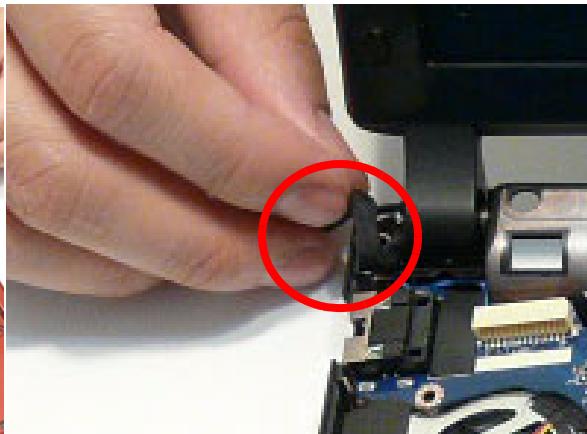
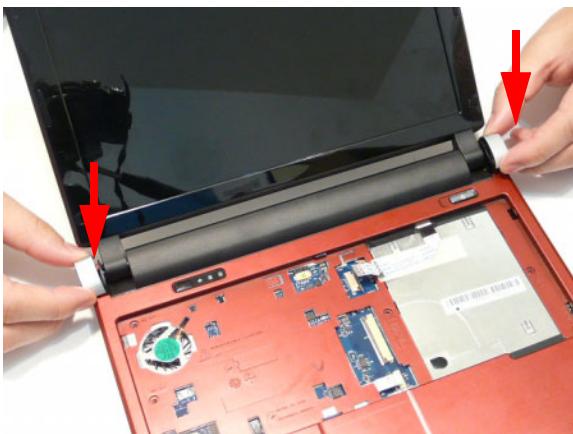
3. Continue pressing down both sides of the Upper Cover and along the bottom edge to snap the covers together.

**NOTE:** Ensure there are no gaps between the Upper and Lower Covers.



4. Replace the Hinge Covers as shown.

**CAUTION:** Make sure the cables are tucked inside the Hinge Covers to avoid damage to the cabling.

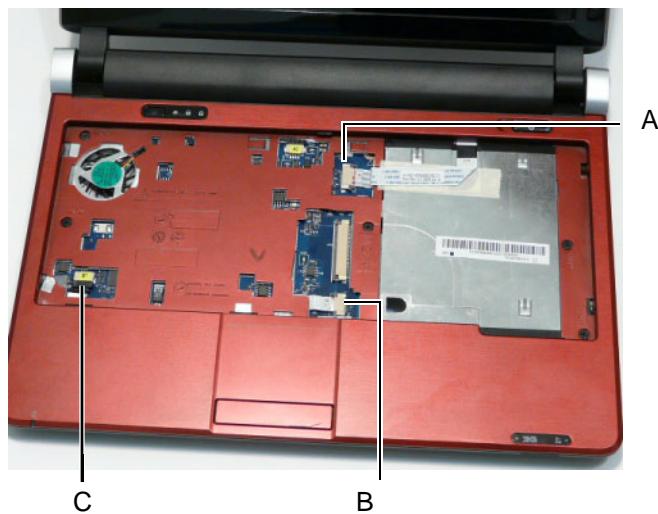


**NOTE:** The Hinge Covers are not identical; the right side cover has a longer locating pin.

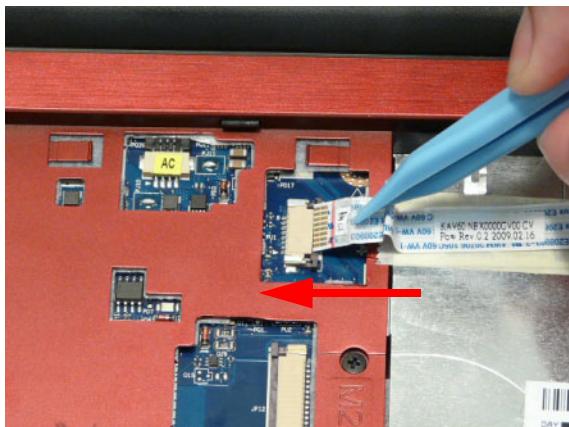
- 
5. Replace the five securing screws in the Upper Cover.



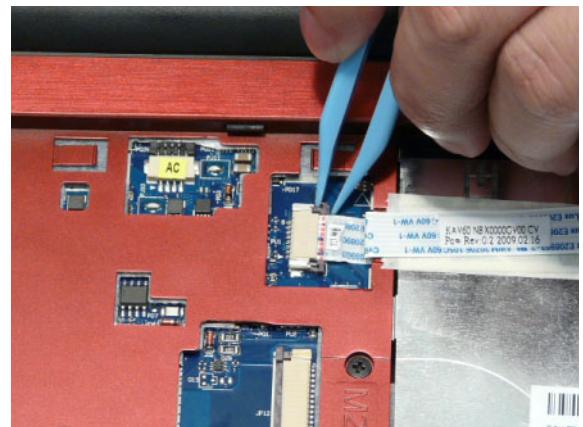
6. Reconnect the following cables to the Mainboard.



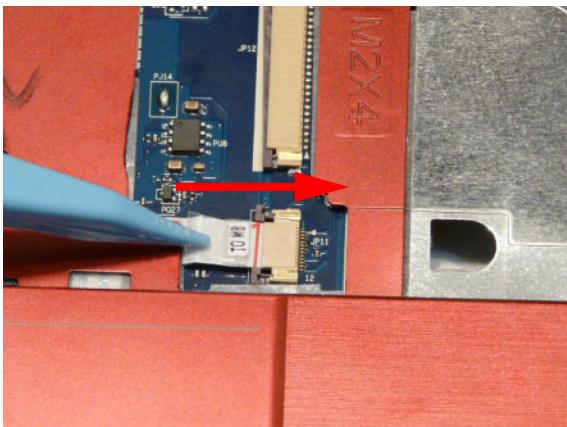
Connect A to the Mainboard.



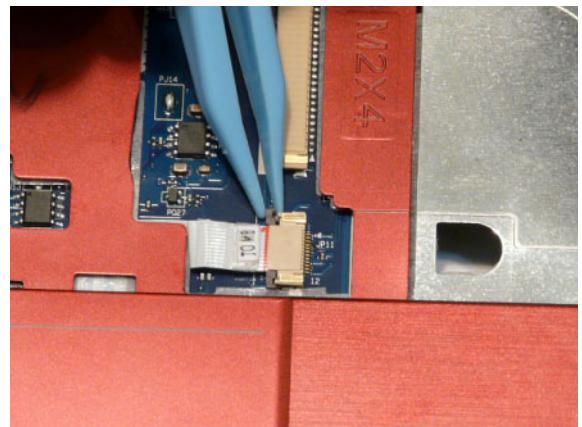
Secure the locking latch on A as shown.



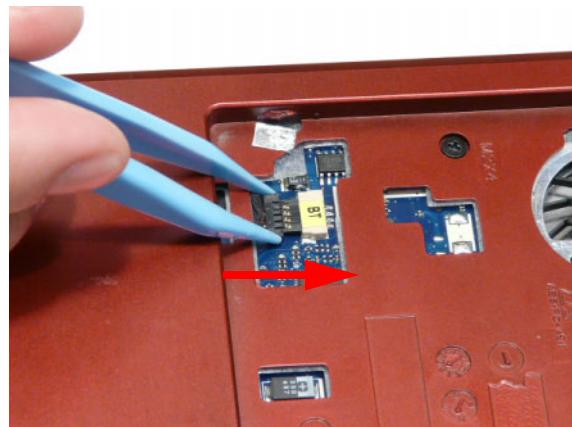
Connect B to the Mainboard.



Secure the locking latch on B as shown.

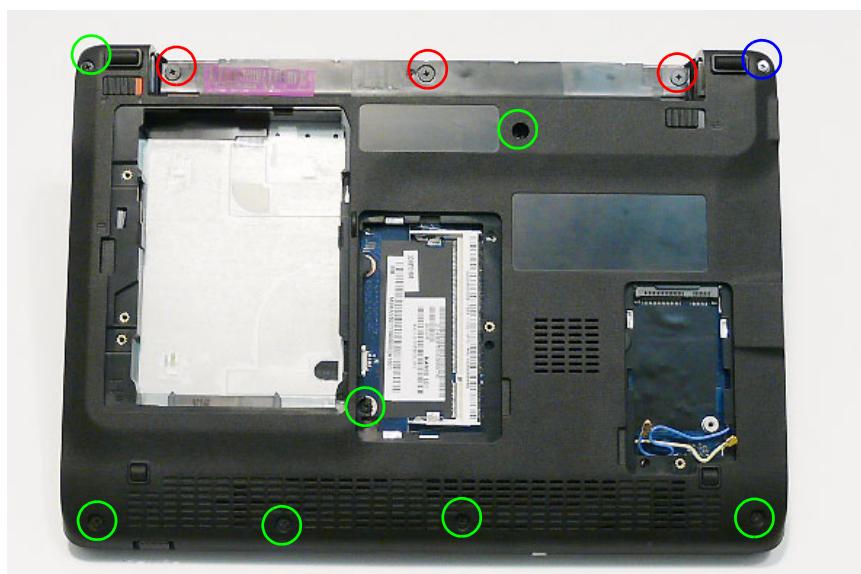


Connect C as shown.



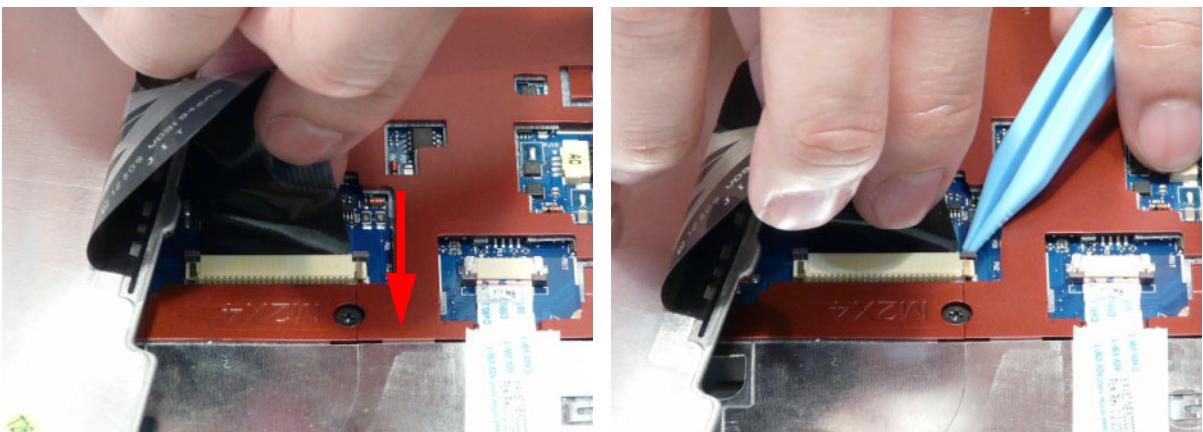
7. Turn the computer over and replace the eleven securing screws as shown.

**NOTE:** Ensure the correct screw type is used for each hole: M2\*3 (red callout), M2\*4 (green callout), and M2\*12 (blue callout).



## Replacing the Keyboard

1. Turn the computer over. Insert the Keyboard FFC in to the Mainboard connector.
2. Close the FFC locking latch as shown.



3. Turn the Keyboard over and slide it in the direction of the arrow.

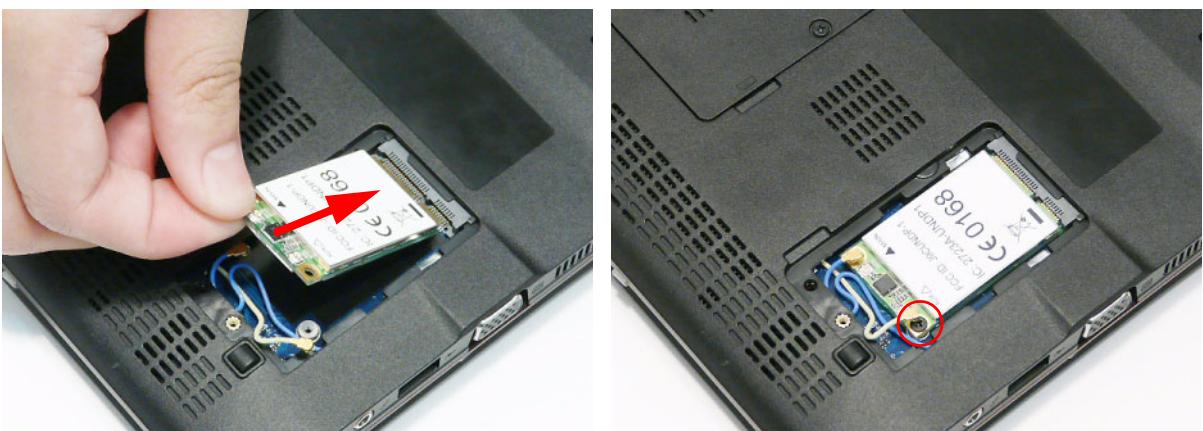
**IMPORTANT:** Ensure the four securing pins are correctly located.



4. Press down around the edges of the Keyboard to engage the locking latches.

## Replacing the 3G Module

1. Turn the computer over. Insert the 3G Module in to the Mainboard socket.
2. Replace the single securing screw.



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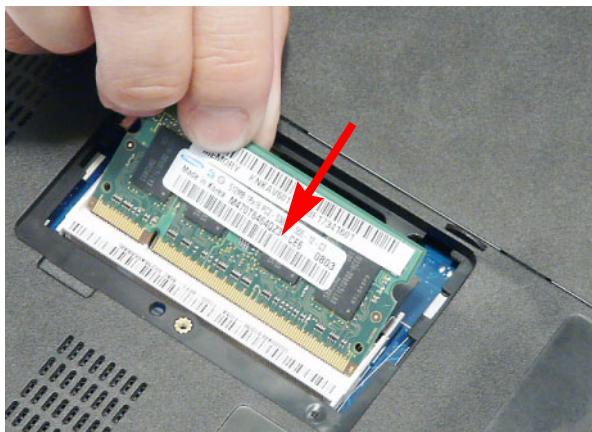
3. Connect the two Antenna cables to the 3G Module.

**IMPORTANT:** The Blue cable attaches to the MAIN terminal and the Yellow cable attaches to the AUX terminal.



## Replacing the DIMM Module

1. Insert the DIMM Module in to the DIMM slot.

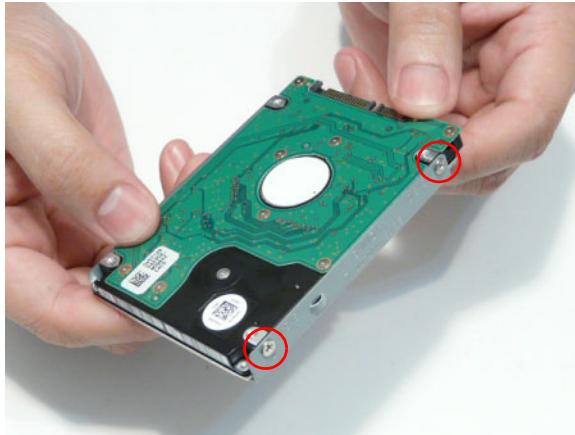


2. Press the module down to complete the installation.



## Replacing the Hard Disk Drive Module

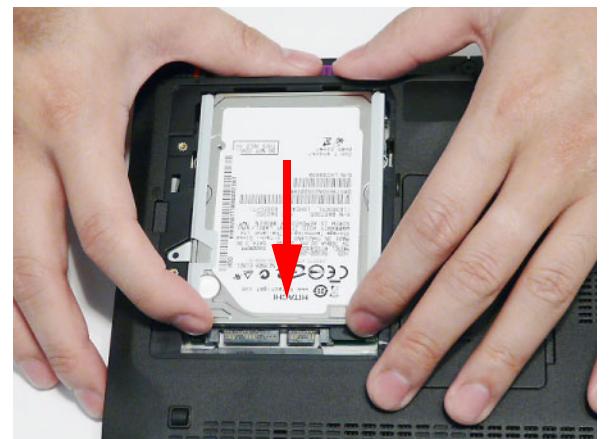
1. Insert the HDD in to the HDD Carrier and secure the Carrier to the HDD by replacing the four screws.



2. Insert the HDD Module into the Lower Cover as shown.



3. Slide the HDD Module in the direction of the arrow to connect the interface.

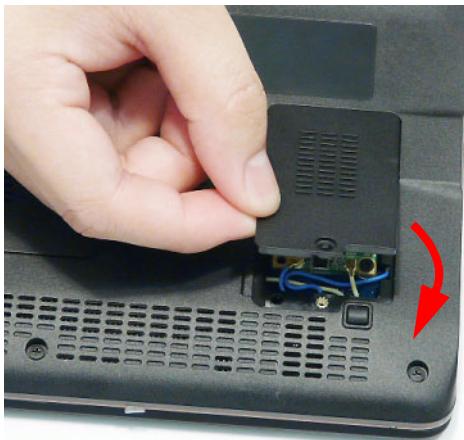


- 
4. Replace the single screw to secure the HDD in place.

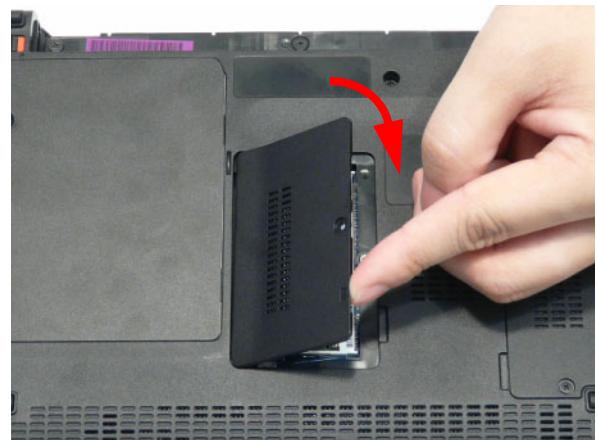


## Replacing the Lower Covers

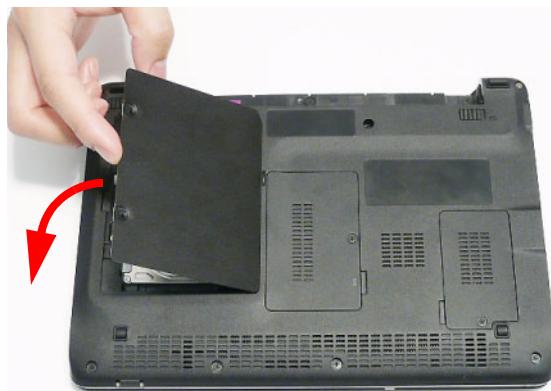
1. Replace the 3G Cover and press down around the perimeter to snap it in to place.



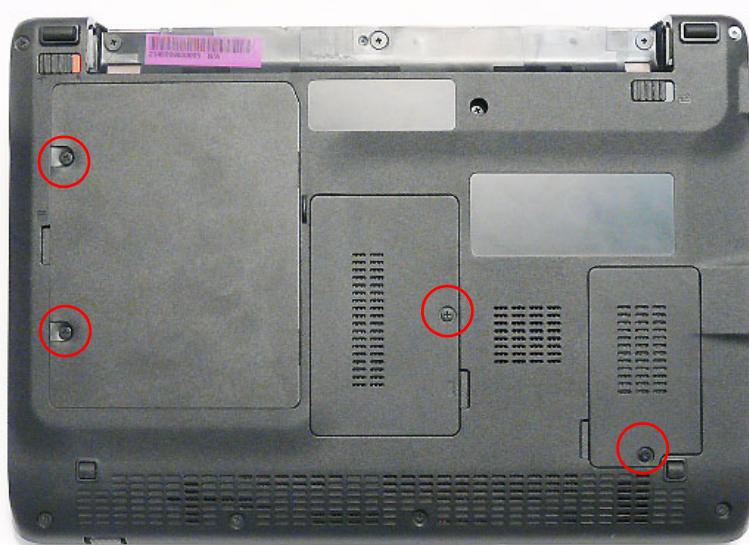
2. Replace the Memory Cover and press down around the perimeter to snap it in to place.



3. Replace the HDD Cover and press down around the perimeter to snap it in to place.



4. Replace the four screws securing the covers in place.

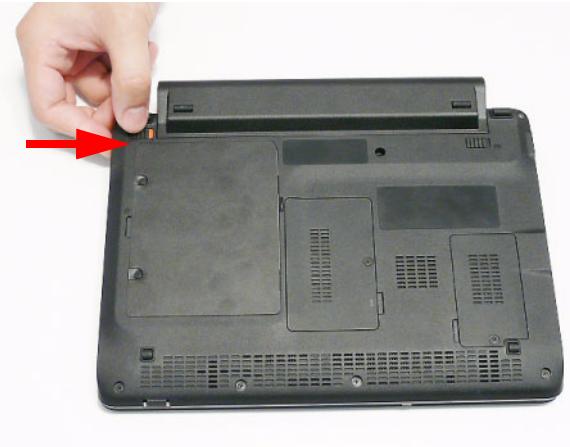


## Replacing the Battery Pack

1. Slide and hold the battery release latch to the release position (1), then insert the battery pack in to the main unit (2).



2. Slide the battery lock/unlock latch to the lock position.



# Troubleshooting

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## Common Problems

Use the following procedure as a guide for computer problems.

**NOTE:** The diagnostic tests are intended to test only Acer products. Non-Acer products, prototype cards, or modified options can give false errors and invalid system responses.

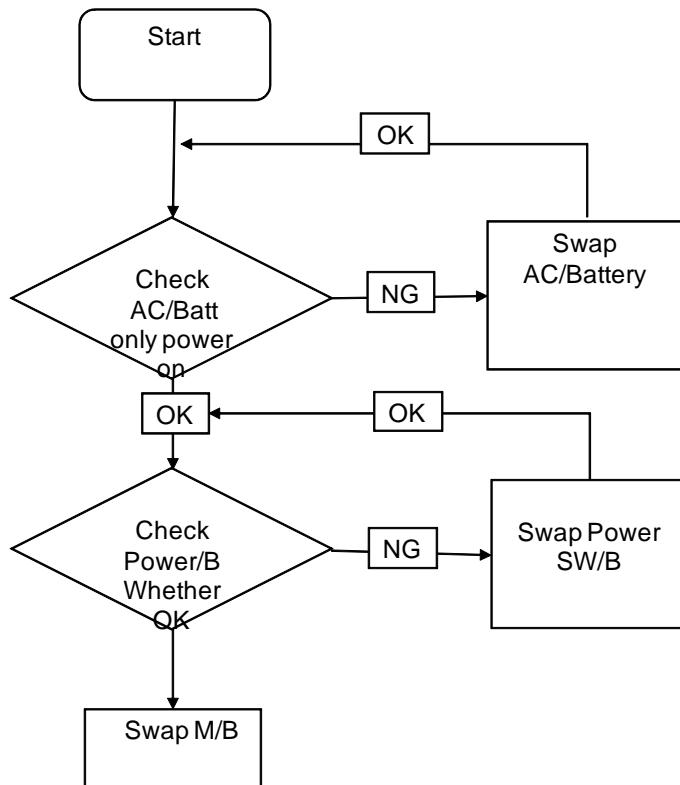
1. Obtain the failing symptoms in as much detail as possible.
2. Verify the symptoms by attempting to re-create the failure by running the diagnostic test or by repeating the same operation.
3. Use the following table with the verified symptom to determine which page to go to.

Symptoms (Verified)	Go To
Power On Issue	Page 120
No Display Issue	Page 121
LCD Failure	Page 123
Internal Keyboard Failure	Page 123
TouchPad Failure	Page 124
Internal Speaker Failure	Page 125
Internal Microphone Failure	Page 127
Rightside USB Failure	Page 129
Wireless Function Failure	Page 130
3G Function Failure	Page 131
Switch Failure	Page 132
Thermal Units Failure	Page 133
Power Button Failure	Page 133
External Mouse Failure	Page 134
Other Functions Failure	Page 134
Intermittent Failures	Page 135
Undermined Failures	Page 135

4. If the issue is still not resolved, see "Online Support Information" on page 181.

## Power On Issue

If the system doesn't power on, perform the following actions one at a time to correct the problem. Do not replace non-defective FRUs:



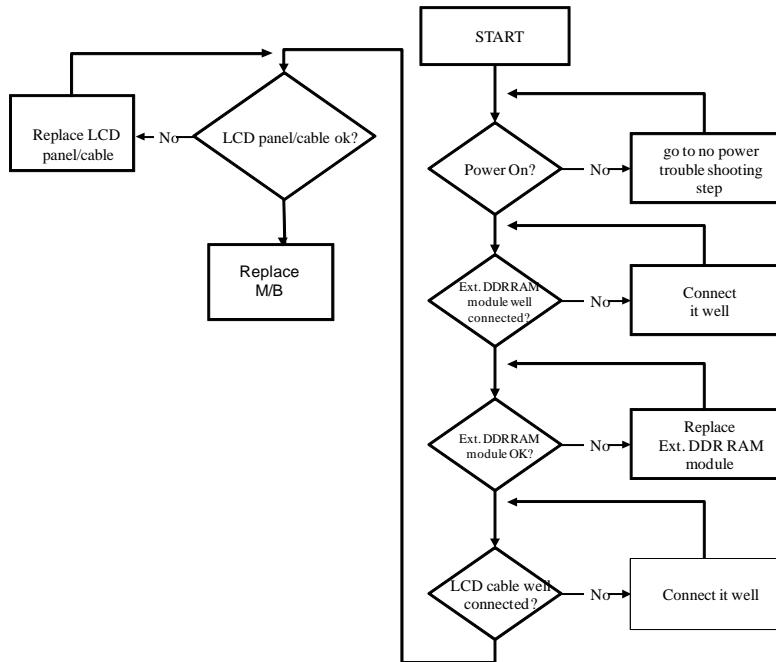
## Computer Shuts down Intermittently

If the system powers off at intervals, perform the following actions one at a time to correct the problem.

1. Check the power cable is properly connected to the computer and the electrical outlet.
2. Remove any extension cables between the computer and the outlet.
3. Remove any surge protectors between the computer and the electrical outlet. Plug the computer directly into a known good electrical outlet.
4. Remove all external and non-essential hardware connected to the computer that are not necessary to boot the computer to the failure point.
5. Remove any recently installed software.
6. If the issue is still not resolved, see "Online Support Information" on page 181.

## No Display Issue

If the **Display** doesn't work, perform the following actions one at a time to correct the problem. Do not replace non-defective FRUs:



## No POST or Video

If the POST or video doesn't display, perform the following actions one at a time to correct the problem.

1. Make sure that the internal display is selected. On this notebook model, switching between the internal display and the external display is done by pressing **Fn+F5**. Reference Product pages for specific model procedures.
2. Make sure the computer has power by checking at least one of the following occurs:
  - Fans start up
  - Status LEDs light up

If there is no power, see "Power On Issue" on page 120.

3. Drain any stored power by removing the power cable and battery and holding down the power button for 10 seconds. Reconnect the power and reboot the computer.
4. Connect an external monitor to the computer and switch between the internal display and the external display is by pressing **Fn+F5** (on this model).

If the POST or video appears on the external display, see "LCD Failure" on page 123.

5. Disconnect power and all external devices including port replicators or docking stations. Remove any memory cards and CD/DVD discs. Restart the computer.

If the computer boots correctly, add the devices one by one until the failure point is discovered.

6. Reseat the memory modules.
7. Remove the drives (see "Disassembly Process" on page 38).
8. If the issue is still not resolved, see "Online Support Information" on page 181.

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## Abnormal Video Display

If video displays abnormally, perform the following actions one at a time to correct the problem.

1. Reboot the computer.
2. If permanent vertical/horizontal lines or dark spots display in the same location, the LCD is faulty and should be replaced. See “Disassembly Process” on page 38.
3. If extensive pixel damage is present (different colored spots in the same locations on the screen), the LCD is faulty and should be replaced. See “Disassembly Process” on page 38.
4. Adjust the brightness to its highest level. See the User Manual for instructions on adjusting settings.  
**NOTE:** Ensure that the computer is not running on battery alone as this may reduce display brightness.  
If the display is too dim at the highest brightness setting, the LCD is faulty and should be replaced. See “Disassembly Process” on page 38.
5. Check the display resolution is correctly configured:
  - a. Minimize or close all Windows.
  - b. If display size is only abnormal in an application, check the view settings and control/mouse wheel zoom feature in the application.
  - c. If desktop display resolution is not normal, right-click on the desktop and select **Personalize**→**Display Settings**.
  - d. Click and drag the Resolution slider to the desired resolution.
  - e. Click **Apply** and check the display. Readjust if necessary.
6. Roll back the video driver to the previous version if updated.
7. Remove and reinstall the video driver.
8. Check the Device Manager to determine that:
  - The device is properly installed. There are no red Xs or yellow exclamation marks.
  - There are no device conflicts.
  - No hardware is listed under Other Devices.
9. If the issue is still not resolved, see “Online Support Information” on page 181.
10. Run the Windows Memory Diagnostic from the operating system DVD and follow the onscreen prompts.
11. If the issue is still not resolved, see “Online Support Information” on page 181.

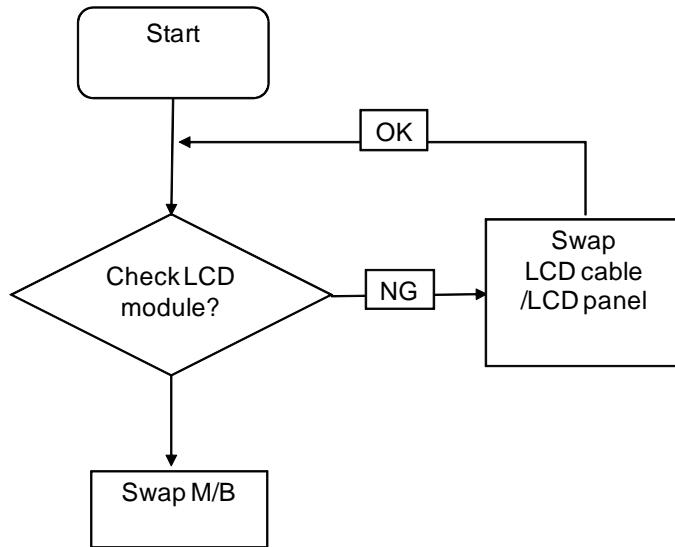
## Random Loss of BIOS Settings

If the computer is experiencing intermittent loss of BIOS information, perform the following actions one at a time to correct the problem.

1. If the computer is more than one year old, replace the CMOS battery.
2. Run a complete virus scan using up-to-date software to ensure the computer is virus free.
3. If the computer is experiencing HDD or ODD BIOS information loss, disconnect and reconnect the power and data cables between devices.  
If the BIOS settings are still lost, replace the cables.
4. If HDD information is missing from the BIOS, the drive may be defective and should be replaced.
5. Replace the Motherboard.
6. If the issue is still not resolved, see “Online Support Information” on page 181.

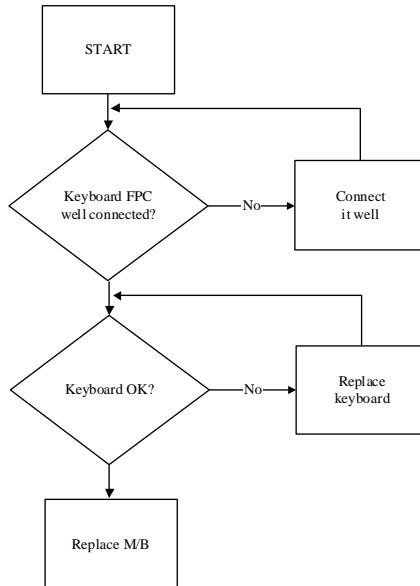
## LCD Failure

If the **LCD** fails, perform the following actions one at a time to correct the problem. Do not replace non-defective FRUs:



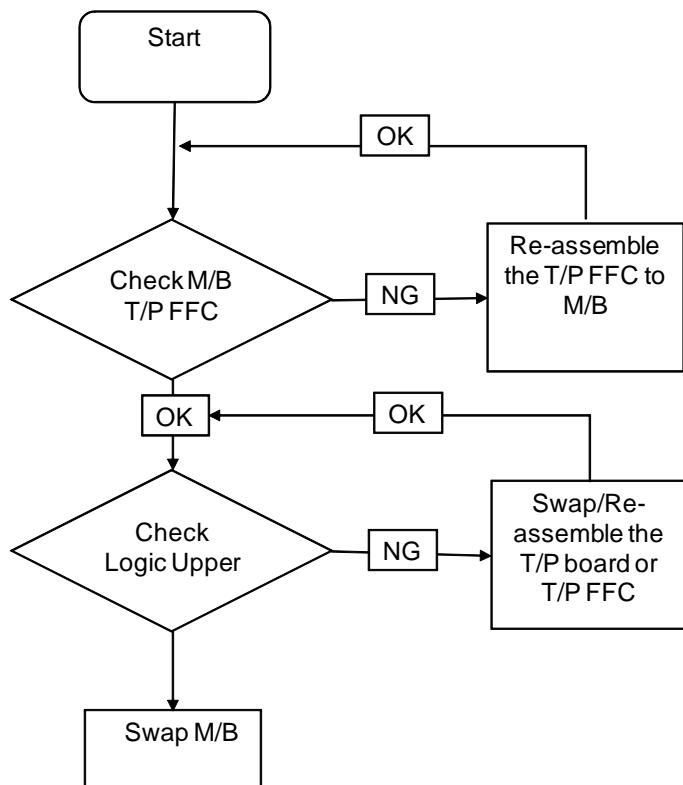
## Built-In Keyboard Failure

If the built-in **Keyboard** fails, perform the following actions one at a time to correct the problem. Do not replace non-defective FRUs:



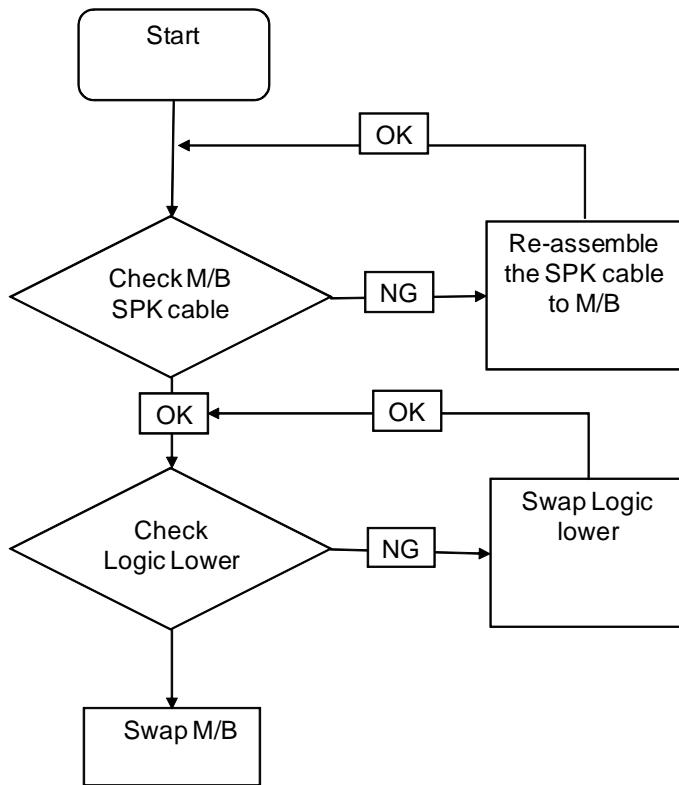
## TouchPad Failure

If the **TouchPad** doesn't work, perform the following actions one at a time to correct the problem. Do not replace non-defective FRUs:



## Internal Speaker Failure

If the internal **Speakers** fail, perform the following actions one at a time to correct the problem. Do not replace non-defective FRUs:



## Sound Problems

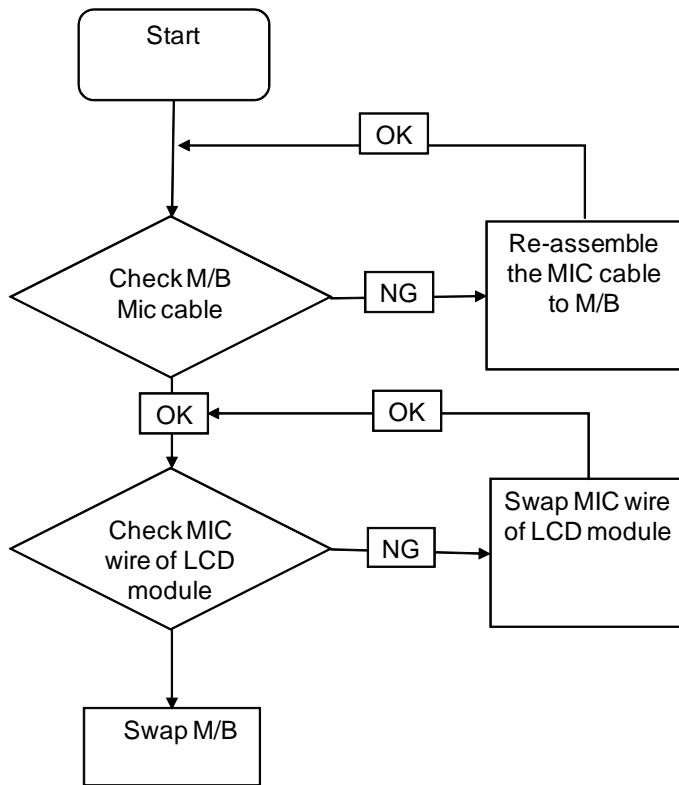
If sound problems are experienced, perform the following actions one at a time to correct the problem.

1. Reboot the computer.
2. Navigate to **Start**→**Control Panel**→**System and Maintenance**→**System**→**Device Manager**. Check the Device Manager to determine that:
  - The device is properly installed.
  - There are no red Xs or yellow exclamation marks.
  - There are no device conflicts.
  - No hardware is listed under Other Devices.
3. Roll back the audio driver to the previous version, if updated recently.
4. Remove and reinstall the audio driver.
5. Ensure that all volume controls are set mid range:
  - a. Click the volume icon on the taskbar and drag the slider to 50. Ensure that the volume is not muted.
  - b. Click Mixer to verify that other audio applications are set to 50 and not muted.
6. Navigate to **Start**→**Control Panel**→**Hardware and Sound**→**Sound**. Ensure that Speakers are selected as the default audio device (green check mark).  
**NOTE:** If Speakers does not show, right-click on the **Playback** tab and select **Show Disabled Devices** (clear by default).
7. Select Speakers and click **Configure** to start **Speaker Setup**. Follow the onscreen prompts to configure the speakers.

- 
8. Remove and recently installed hardware or software.
  9. Restore system and file settings from a known good date using **System Restore**.  
If the issue is not fixed, repeat the preceding steps and select an earlier time and date.
  10. Reinstall the Operating System.
  11. If the Issue is still not resolved, see “Online Support Information” on page 181.

## Internal Microphone Failure

If the internal **Microphone** fails, perform the following actions one at a time to correct the problem. Do not replace non-defective FRUs:



## Microphone Problems

If internal or external **Microphones** do not operate correctly, perform the following actions one at a time to correct the problem.

1. Check that the microphone is enabled. Navigate to **Start**→**Control Panel**→**Hardware and Sound**→**Sound** and select the **Recording** tab.
2. Right-click on the **Recording** tab and select **Show Disabled Devices** (clear by default).
3. The microphone appears on the **Recording** tab.
4. Right-click on the microphone and select **Enable**.
5. Select the microphone then click **Properties**. Select the **Levels** tab.
6. Increase the volume to the maximum setting and click **OK**.
7. Test the microphone hardware:
  - a. Select the microphone and click **Configure**.
  - b. Select **Set up microphone**.
  - c. Select the microphone type from the list and click **Next**.
  - d. Follow the onscreen prompts to complete the test.
8. If the issue is still not resolved, see “Online Support Information” on page 181.

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## HDD Not Operating Correctly

If the **HDD** does not operate correctly, perform the following actions one at a time to correct the problem.

1. Disconnect all external devices.
2. Run a complete virus scan using up-to-date software to ensure the computer is virus free.
3. Run the Windows Vista Startup Repair Utility:
  - a. insert the Windows Vista Operating System DVD in the ODD and restart the computer.
  - b. When prompted, press any key to start to the operating system DVD.
  - c. The **Install Windows** screen displays. Click **Next**.
  - d. Select **Repair your computer**.
  - e. The **System Recovery Options** screen displays. Click **Next**.
  - f. Select the appropriate operating system, and click **Next**.

**NOTE:** Click **Load Drivers** if controller drives are required.

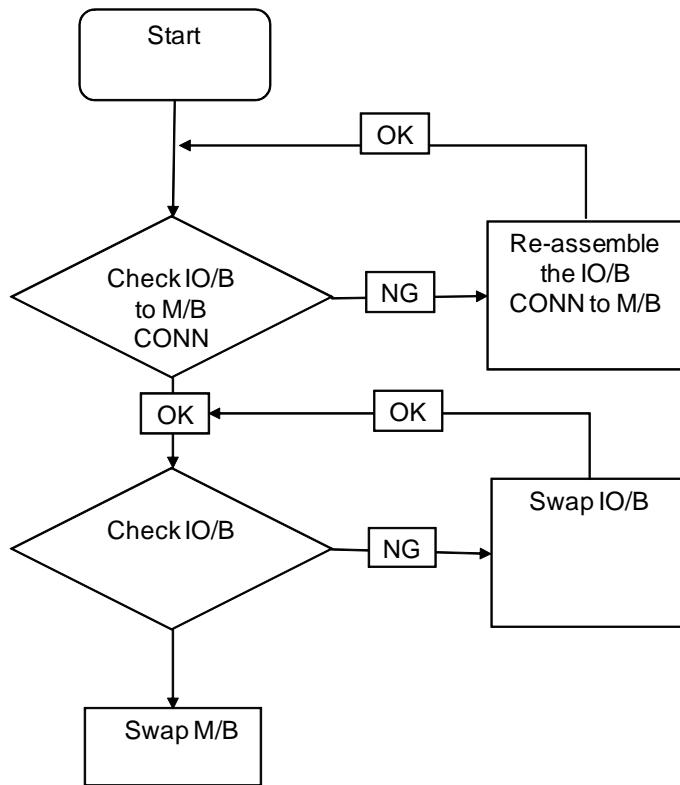
- g. Select **Startup Repair**.
- h. Startup Repair attempts to locate and resolve issues with the computer.
- i. When complete, click **Finish**.

If an issue is discovered, follow the onscreen information to resolve the problem.

4. Run the Windows Memory Diagnostic Tool. For more information see Windows Help and Support.
5. Restart the computer and press F2 to enter the BIOS Utility. Check the BIOS settings are correct and that CD/DVD drive is set as the first boot device on the Boot menu.
6. Ensure all cables and jumpers on the HDD and ODD are set correctly.
7. Remove any recently added hardware and associated software.
8. Run the Windows Disk Defragmenter. For more information see Windows Help and Support.
9. Run Windows Check Disk by entering **chkdsk /r** from a command prompt. For more information see Windows Help and Support.
10. Restore system and file settings from a known good date using **System Restore**.  
If the issue is not fixed, repeat the preceding steps and select an earlier time and date.
11. Replace the HDD. See “Disassembly Process” on page 38.

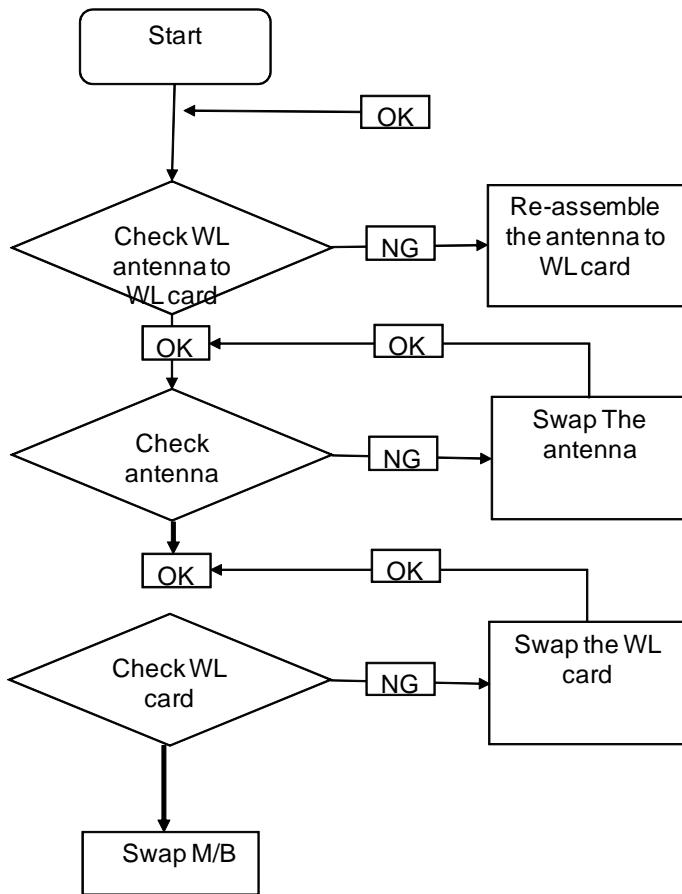
## USB Failure (Rightside)

If the rightside **USB** port fails, perform the following actions one at a time to correct the problem. Do not replace non-defective FRUs:



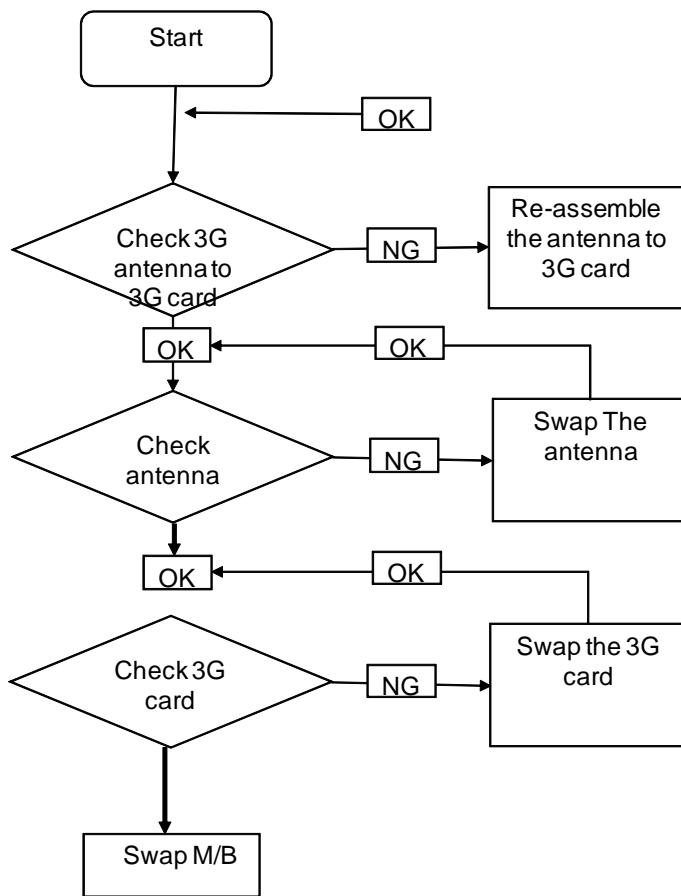
## Wireless Function Test Failure

If the wireless function test fails, perform the following actions one at a time to correct the problem. Do not replace non-defective FRUs:



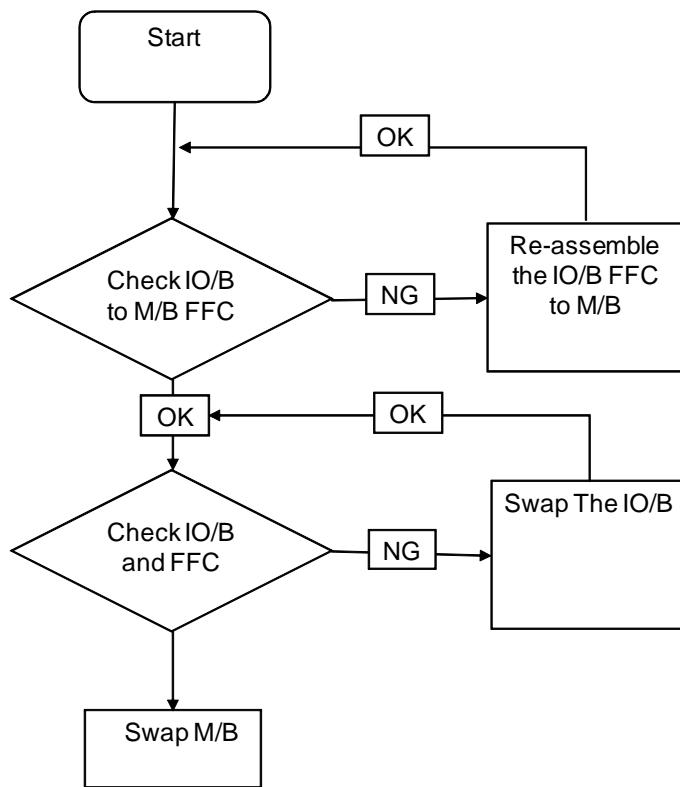
## 3G Function Test Failure

If the 3G function test fails, perform the following actions one at a time to correct the problem. Do not replace non-defective FRUs:



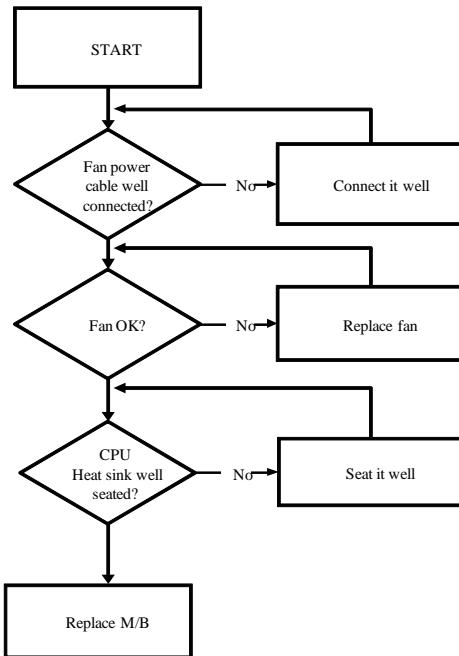
## Switch Failure

If the switches fail, perform the following actions one at a time to correct the problem. Do not replace non-defective FRUs:



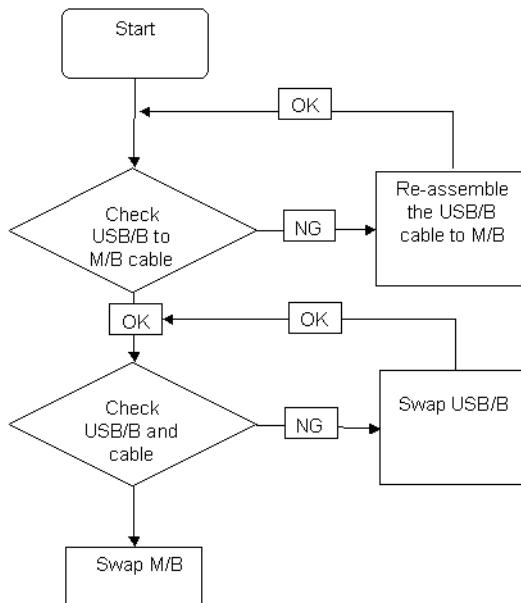
## Thermal Units Failure

If the thermal units fail, perform the following actions one at a time to correct the problem. Do not replace non-defective FRUs:



## Power Button Failure

If the Power Button fails, perform the following actions one at a time to correct the problem. Do not replace non-defective FRUs:



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## External Mouse Failure

If an external **Mouse** fails, perform the following actions one at a time to correct the problem.

1. Try an alternative mouse.
2. If the mouse uses a wireless connection, insert new batteries and confirm there is a good connection. See the mouse user manual.
3. If the mouse uses a USB connection, try an alternate USB port.
4. Try an alternative program to verify mouse operation. Reinstall the program experiencing mouse failure.
5. Restart the computer.
6. Remove any recently added hardware and associated software.
7. Remove any recently added software and reboot.
8. Restore system and file settings from a known good date using **System Restore**.  
If the issue is not fixed, repeat the preceding steps and select an earlier time and date.
9. Run the Event Viewer to check the events log for errors. For more information see Windows Help and Support.
10. Roll back the mouse driver to the previous version if updated recently.
11. Remove and reinstall the mouse driver.
12. Check the Device Manager to determine that:
  - The device is properly installed. There are no red Xs or yellow exclamation marks.
  - There are no device conflicts.
  - No hardware is listed under Other Devices.
13. If the Issue is still not resolved, see “Online Support Information” on page 181.

## Other Failures

If the CRT Switch, Dock, LAN Port, external MIC or Speakers, PCI Express Card, 5-in-1 Card Reader or Volume Wheel fail, perform the following general steps to correct the problem. Do not replace non-defective FRUs:

1. Check Drive whether is OK.
2. Check Test Fixture is ok.
3. Swap M/B to Try.

---

## Intermittent Problems

Intermittent system hang problems can be caused by a variety of reasons that have nothing to do with a hardware defect, such as: cosmic radiation, electrostatic discharge, or software errors. FRU replacement should be considered only when a recurring problem exists.

When analyzing an intermittent problem, do the following:

1. Run the advanced diagnostic test for the system board in loop mode at least 10 times.
2. If no error is detected, do not replace any FRU.
3. If any error is detected, replace the FRU. Rerun the test to verify that there are no more errors.

## Undetermined Problems

The diagnostic problems does not identify which adapter or device failed, which installed devices are incorrect, whether a short circuit is suspected, or whether the system is inoperative.

Follow these procedures to isolate the failing FRU (do not isolate non-defective FRU).

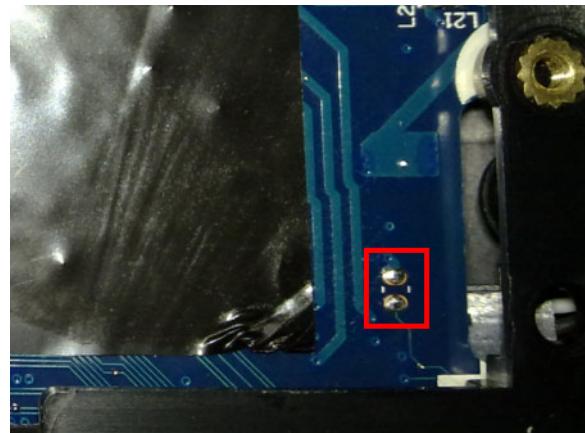
**NOTE:** Verify that all attached devices are supported by the computer.

**NOTE:** Verify that the power supply being used at the time of the failure is operating correctly. (See "Power On Issue" on page 120):

1. Power-off the computer.
2. Visually check them for damage. If any problems are found, replace the FRU.
3. Remove or disconnect all of the following devices:
  - Non-Acer devices
  - Printer, mouse, and other external devices
  - Battery pack
  - Hard disk drive
  - DIMM
  - CD-ROM/Diskette drive Module
  - PC Cards
4. Power-on the computer.
5. Determine if the problem has changed.
6. If the problem does not recur, reconnect the removed devices one at a time until you find the failing FRU.
7. If the problem remains, replace the following FRU one at a time. Do not replace a non-defective FRU:
  - System board
  - LCD assembly

## Motherboard CMOS Discharge

If any problems such as incorrect CMOS settings, the CMOS data can be cleared by short-circuiting the CMOS J6 jumpers. Open the 3G bay door and short-circuit the jumpers near the 3G connector, using a metal conductivity tool.



# POST Code Reference Tables

These tables describe the POST codes and components of the POST process.

Sec:

NO\_EVICTION\_MODE\_DEBUG EQU 1 (CommonPlatform\sec\IA32\SecCore.inc)

Code	Description
0xC2	MTRR setup
0xC3	Enable cache
0xC4	Establish cache tags
0xC5	Enter NEM, Place the BSP in No Fill mode, set CR0.CD = 1, CR0.NW = 0.
0xCF	Cache Init Finished

Memory:

DEBUG\_BIOS equ 1 (Chipset\Alviso\MemoryInitAsm\IA32\IMMEMORY.INC)

Code	Description
0xA0	First memory check point
0x01	Enable MCHBAR
0x02	Check for DRAM initialization interrupt and reset fail
0x03	Verify all DIMMs are DDR or DDR2 and unbuffered
0x04	Detect an improper warm reset and handle
0x05	Detect if ECC SO-DIMMs are present in the system
0x06	Verify all DIMMs are single or double sided and not asymmetric
0x07	Verify all DIMMs are x8 or x16 width
0x08	Find a common CAS latency between the DIMMS and the MCH
0x09	Determine the memory frequency and CAS latency to program
0x10	Determine the smallest common TRAS for all DIMMs
0x11	Determine the smallest common TRP for all DIMMs
0x12	Determine the smallest common TRCD for all DIMMs
0x13	Determine the smallest refresh period for all DIMMs
0x14	Verify burst length of 8 is supported by all DIMMs
0x15	Determine the smallest tWR supported by all DIMMs
0x16	Determine DIMM size parameters
0x17	Program the correct system memory frequency
0x18	Determine and set the mode of operation for the memory channels
0x19	Program clock crossing registers
0x20	Disable Fast Dispatch
0x21	Program the DRAM Row Attributes and DRAM Row Boundary registers
0x22	Program the DRAM Bank Architecture register
0x23	Program the DRAM Timing & and DRAM Control registers
0x24	Program ODT
0x25	Perform steps required before memory init
0x26	Program the receive enable reference timing control register Program the DLL Timing Control Registers, RCOMP settings

<b>Code</b>	<b>Description</b>
0x27	Enable DRAM Channel I/O Buffers
0x28	Enable all clocks on populated rows
0x29	Perform JEDEC memory initialization for all memory rows
0x30	Perform steps required after memory init
0x31	Program DRAM throttling and throttling event registers
0x32	Setup DRAM control register for normal operation and enable
0x33	Enable RCOMP
0x34	Clear DRAM initialization bit in the SB
0x35	Initialization Sequence Completed, program graphic clocks
0x43	Program Thermal Throttling

## BDS & Specific action:

<b>Code</b>	<b>Description</b>
0x00	Report the legacy boot is happening
0x12	Wake up the Aps
0x13	Initialize SMM Private Data and relocate BSP SMBASE
0x21	PC init begin at the stage1
0x27	Report every memory range do the hard ware ECC init
0x28	Report status code of every memory range
0x50	Get the root bridge handle
0x51	Notify pci bus driver starts to program the resource
0x58	Reset the host controller
0x5A	IdeBus begin initialization
0x79	Report that the remote terminal is being disabled
0x7A	Report that the remote terminal is being enabled
0x90	Keyboard reset
0x91	USB Keyboard disable
0x92	Keyboard detection
0x93	Report that the usb keyboard is being enabled
0x94	Clear the keyboard buffer
0x95	Init Keyboard
0x98	Mouse reset
0x99	Mouse disable
0x9A	Detect PS2 mouse
0x9B	Report that the mouse is being enabled
0xB8	Peripheral removable media reset (ex: IsaFloppy, USB device)
0xB9	Peripheral removable media disable
0xBB	Peripheral removable media enable
0xE4	Report Status Code here for DXE_ENTRY_POINT once it is available
0xF8	Report that ExitBootServices () has been called
0xF9	Runtime driver set virtual address map

## Each PEIM entry point used in 80\_PORT

Code	Description
0x00	
0x01	PEI_EVENT_LOG
0xA1	PEI_OEM_SERVICE
0xA2	PEI_SIO_INIT
0xA3	PEI_MONO_STATUS_CODE
0xA4	PEI_CPU_IO_PCI_CFG
0x06	PEI_CPU_IO
0x07	PEI_PCI_CFG
0xA5	PEI_CPU_PEIM
0xA6	PEI_PLATFORM_STAGE1
0xA7	PEI_VARIABLE
0xA8	PEI_SB_INIT
0x0C	PEI_CAPSULE
0xAA	PEI_PLATFORM_STAGE2
0xAC	PEI_SB_SMBUS_ARP_DISABLED
0x0F	PEI_HOST_TO_SYSTEM
0x40	PEI_MEMORY_INIT
0x41	PEI_S3_RESUME
0xAD	PEI_CLOCK_GEN
0xAB	PEI_OP_PRESENCE
0xAE	PEI_FIND_FV
0x16	PEI_H2O_DEBUG_IO
0x17	PEI_H2O_DEBUG_COMM
0x16~0x1F	PEI_RESERVED
0x20~0x2E	PEI_OEM_DEFINED
0xAF	PEI_DXE_IPL

## Each Driver entry point used in 80\_PORT

Code	Description
0x30	RESERVED
0xB6	DXE_CRC32_SECTION_EXTRACT
0xB8	SCRIPT_SAVE
0xB9	ACPI_S3_SAVE
0xBA	SMART_TIMER
0xBB	JPEG_DECODER
0xBC	PCX_DECODER
0xBE	HT_CPU / MP_CPU
0xBF	LEGACY_METRONOME
0xC0	FTWLITE
0xC1	RUN_RIME
0xC2	MONOTONIC_COUNTER
0xC3	WATCH_DOG_TIMER

<b>Code</b>	<b>Description</b>
0xC4	SECURITY_STUB
0xC5	DXE_CPU_IO
0xC6	CF9_RESET
0xC7	PC_RTC
0xC8	STATUS_CODE
0xC9	VARIABLE EMU_VARIABLE
0xD9	DXE_CHIPSET_INIT
0x45	DXE_ALERT_FORMAT
0xD6	PCI_HOST_BRIDGE
0xD7	PCI_EXPRESS
0xD5	DXE_SB_INIT
0xDA	IDE_CONTROLLER
0xDB	SATA_CONTROLLER
0xDD	SB_SM_BUS
0xE7	ISA_ACPI_DRIVER
0xE8	ISA_BUS
0xE9	ISA_SERIAL
0xED	BUS_PCI_UNDI
0xEC	PCI_BUS
0xF6	BOOT_PRIORITY
0xF7	FVB_SERVICE
0xF8	ACPI_PLATFORM
0xFB	PCI_HOT_PLUG
0xFC	DXE_PLATFORM
0xFD	PLATFORM_IDE
0x97	SMBIOS
0x98	MEMORY_SUB_CLASS
0x99	MISC_SUB_CLASS
0x82	CON_PLATFORM
0x83	SAVE_MEMORY_CONFIG
0x84	ACPI_SUPPORT
0x85	CON_SPLITTER_UGA_VGA / CON_SPLITTER
0x88	VGA_CLASS
0x89	DATA_HUB
0x60	DISK_IO
0x8B	MEMORY_TEST
0x62	CRISIS_RECOVERY
0x8D	LEGACY_8259
0x8E	LEGACY_REGION
0x8F	LEGACY_INTERRUPT
0x70	BIOS_KEYBOARD
0x71	BIOS_VEDIO

<b>Code</b>	<b>Description</b>
0x72	MONITER_KEY
0x73	LEGACY_BIOS
0x75	LEGACY_BIOS_PLATFORM
0x76	PCI_PLATFORM
0x6C	ISA_FLOOPY
0x6D	PS2_MOUSE
0x6E	USB_BOT
0x6F	USB_CBI0
0x74	USB_MOUSE
0xFA	SETUP.Utility
0x90	FW_BLOCK_SERVICE
0x78	SMM_USB_LEGACY
0x86	GRAPHICS_CONSOLE
0x87	TERMINAL
0x8A	DATA_HUB_STD_ERR
0x7C	FAT
0x7D	PARTITION
0x7E	ENGLISH
0x7F	FRENCH
0x9E	HII_DATABASE
0x9F	OEM_SETUP_BROWSER
0x8C	OEM_BADGING_SUPPORT
0xF9	SETUP_MOUSE
0x72	MONITOR_KEY
0xBD	PLATFORM_BDS
0x8D	RESERVED
0x8E	RESERVED
0x8F	RESERVED
0xA0	DXE_H2O_DEBUG_IO
0xB3	DXE TPM_TCG
0xB4	DXE TPM_PHYSICAL_PRESENCE
0xB7	DXE_OEM_SERVICE
0x9B	DXE_SECURITY_HDD_PASSWORD_SERVICE
0xA9	DXE_LAN_IDER_CONTROLLER
0x9C	DXE_SECURITY_SYSTEM_PASSWORD_SERVICE
0x9D	DXE_SECURITY_PASSWORD_CONSOLE
0xCB	DXE_DATA_HUB_RECORD_POLICY
0xB5	DXE TPM_DRIVER
0x11	CHINESE
0xB0	JAPANESE
0xB1	DXE_UNICODE_COLLATION

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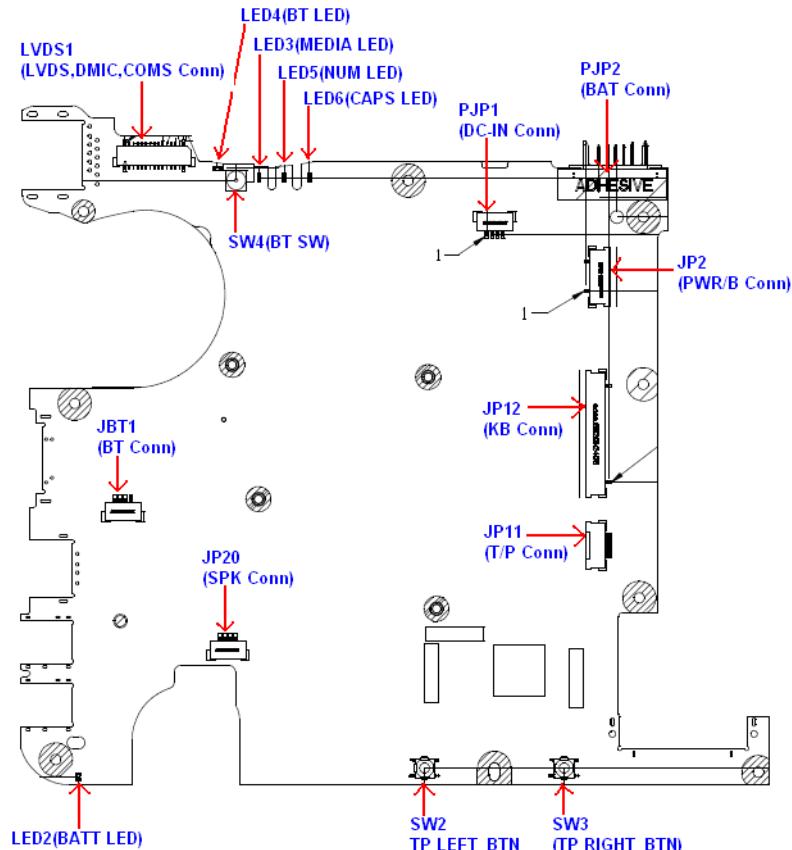
## Each SmmDriver entry point used in 80\_PORT

Code	Description
0xD4	SMM_ACCESS
0xDE	SMM_CONTROL
0xCC	SMM_BASE
0xD2	SMM_RUNTIME
0xDF	SB_SMM_DISPATCH
0xD0	SMM_THUNK
0xCA	SMM_ACPI_SW_CHILD
0xFE	SMM_PLATFORM
0xD8	SMM_GMCH_MBI
0x90	SMM_FW_BLOCK_SERVICE
0x91	SMM_VARIABLE
0x92	SMM_IHISI
0x93	SMM_INT15_MICROCODE
0x94	SMM_PNP
0x95	SMM_INIT_PPM
0xD3	SMM_OEM_SERVICE

# Jumper and Connector Locations

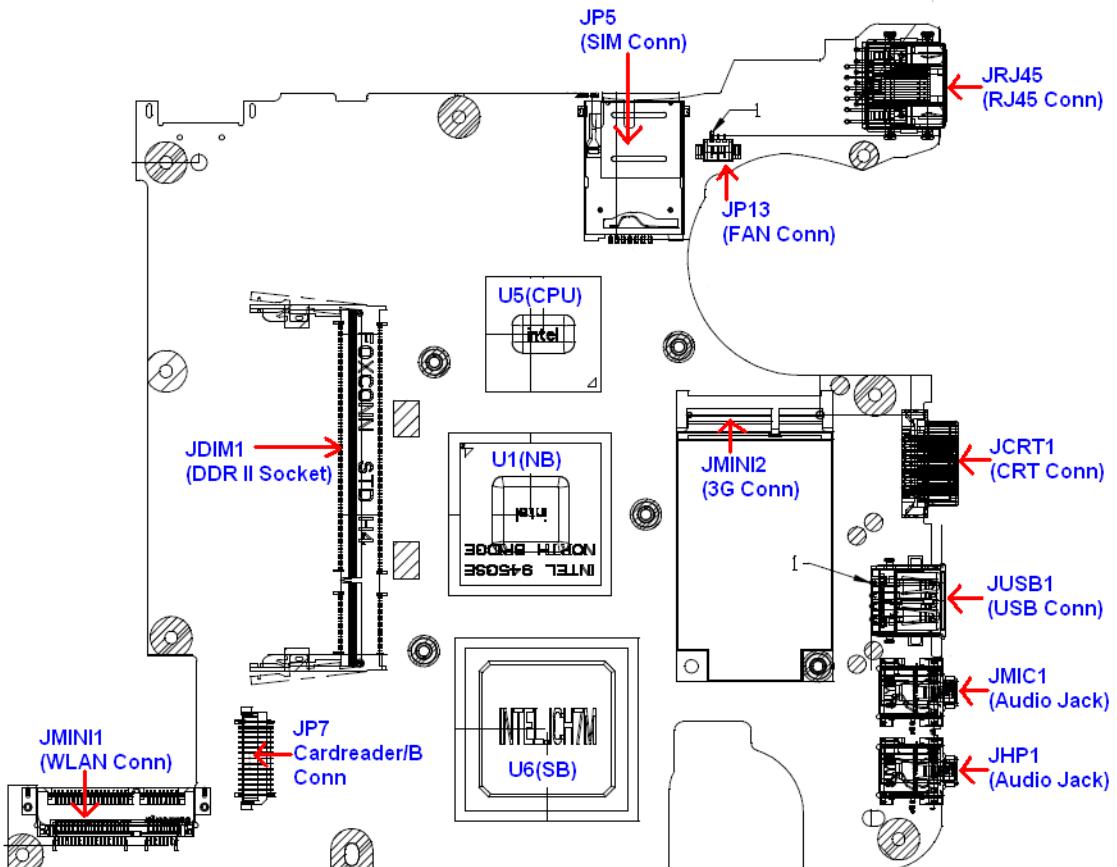
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## Top View



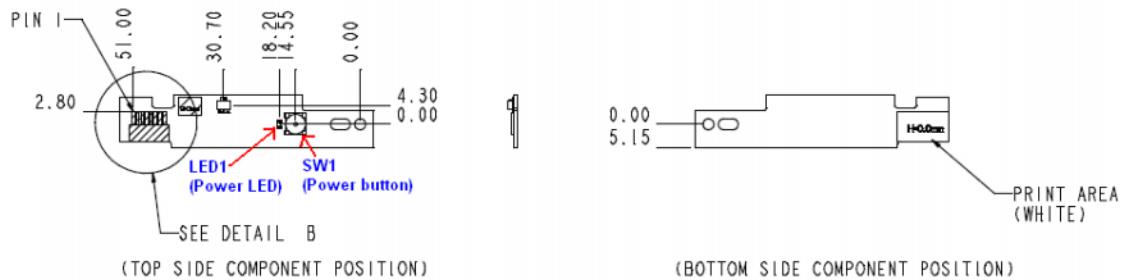
Item	Description	Item	Description
JP2	To PWR/B connector	SW2	Left button
JP12	Internal keyboard connector	SW3	Right button
JP20	Speaker connector	SW4	Bluetooth button
JP11	Internal track-pad connector	LED2	Battery LED
JLVDS1	LCD connector	LED3	Media LED
JBT1	Bluetooth connector	LED4	Bluetooth LED
PJP1	To Power core connector	LED5	NUM LED
PJP2	Battery connector	LED6	CAPS LED

## Bottom View



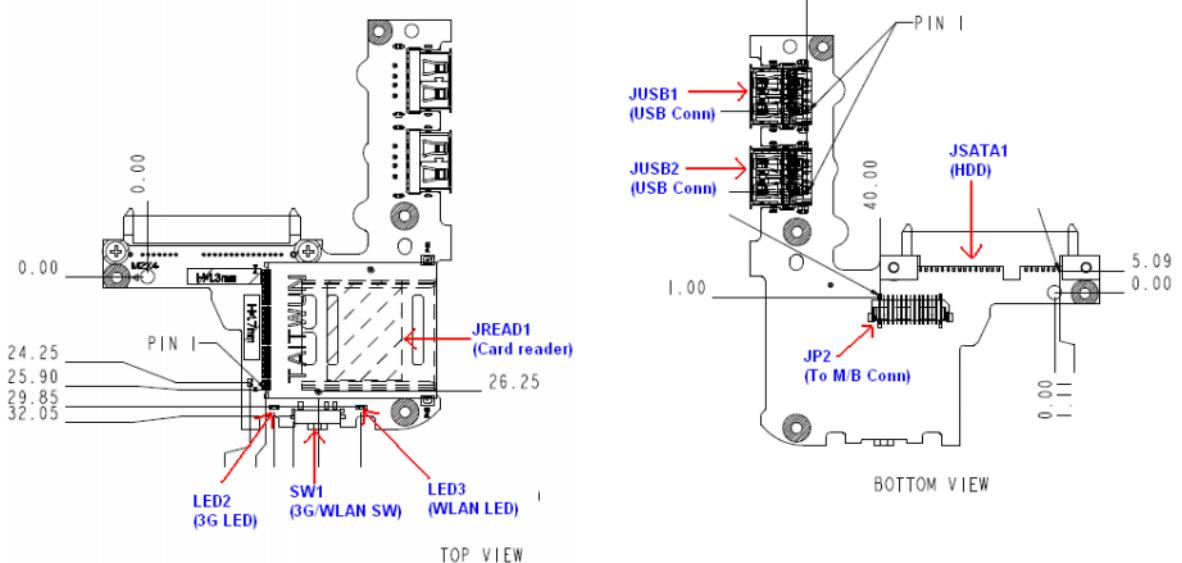
Item	Description	Item	Description
JDIM1	DDR2 Socket	JMINI2	MINI card (3G) socket
JMINI1	MINI card (wireless) socket	JP13	Fan connector
JCRT1	CRT connector	JP5	SIM card connector
JRJ45	RJ45 LAN connector	JP7	To Cardreader/B connector
JUSB1	External USB connector	U1	NB
JHP1	Headphone connector	U5	CPU
JMIC1	Mic-in connector	U6	SB

## Power board



Item	Description
SW1	Power button
LED1	Power LED

# Card reader board



Item	Description	Item	Description
JUSB1	External USB connector	JP2	To M/B connector
JUSB2	External USB connector	SW1	3G/WLAN switch
JREAD1	Card reader connector	LED2	3G(WWAN) LED
JSATA1	HDD connector	LED3	Wireless LED

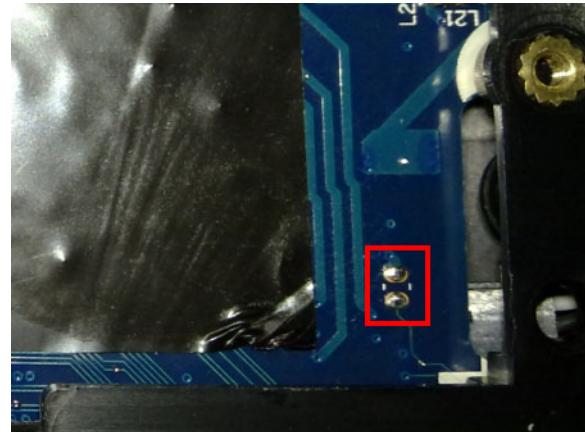
# Clearing Password Check and BIOS Recovery

This section provide you the standard operating procedures of clearing password and BIOS recovery for eMachines eM250. eMachines eM250 provides one Hardware Open Gap on main board for clearing password check, and one Hotkey for enabling BIOS Recovery.

## Clearing Password Check

### Hardware Open Gap Description

Item	Description	Location
R219	Clear CMOS Jumper	3G bay, near the 3G connector



### Steps for Clearing BIOS Password Check

If users set BIOS Password (Supervisor Password and/or User Password) for a security reason, BIOS will ask the password during systems POST or when systems enter to BIOS Setup menu. However, once it is necessary to bypass the password check, users need to short the HW Gap to clear the password by the following steps:

- Power Off the system, and remove HDD, AC and Battery from the machine.
- Open the back cover of the machine, and locate the HW Gap on M/B as shown above.
- Use an electric conductivity tool to short the two points of the HW Gap.
- Plug in AC power, keep the short condition on the HW Gap, and press Power Button to power on the system till BIOS POST finish. Then remove the tool from the HW Gap.
- Restart system. Press F2 key to enter BIOS Setup menu.
- If there is no Password request, BIOS Password is cleared. Otherwise, please follow the steps and try again.

**NOTE:** The steps are only for clearing BIOS Password (Supervisor Password and User Password).

---

## BIOS Recovery by Crisis Disk

### BIOS Recovery Boot Block:

BIOS Recovery Boot Block is a special block of BIOS. It is used to boot up the system with minimum BIOS initialization. Users can enable this feature to restore the BIOS firmware to a successful one once the previous BIOS flashing process failed.

### BIOS Recovery Hotkey:

The system provides a function hotkey: **Fn+Esc**, for enable BIOS Recovery process when system is powered on during BIOS POST. To use this function, it is strongly recommended to have the AC adapter and Battery present. If this function is enabled, the system will force the BIOS to enter a special BIOS block, called Boot Block.

### Steps for BIOS Recovery by USB Flash Crisis Disk:

Before doing this, a Crisis Diskette should be prepared ready in hand. The Crisis Diskette could be made by executing the Crisis Disk program in another system with Windows XP OS.

Follow the steps below:

1. Plug in the USB disk.
2. Launch the **wincris.exe** program to create a USB Crisis Disk. Click **Start** to initiate the process.
3. Select the **Quick Format** option to format the disk and click **Start**. Follow the instructions on the screen to create the disk.
4. Copy the **KAV60.fd** BIOS file into USB flash disk root directory.

**NOTE:** Do not place any other \*.fd file in the USB flash disk root directory.

To use the Crisis USB key, do the following:

1. Plug USB storage into USB port.
2. Press **Fn + ESC** button then plug in AC power.  
The Power button flashes orange once.
3. Press **Power** button to initiate system CRISIS mode.  
When CRISIS is complete, the system auto restarts with a workable BIOS.
4. Update the latest version BIOS for this machine by regular BIOS flashing process.

# FRU (Field Replaceable Unit) List

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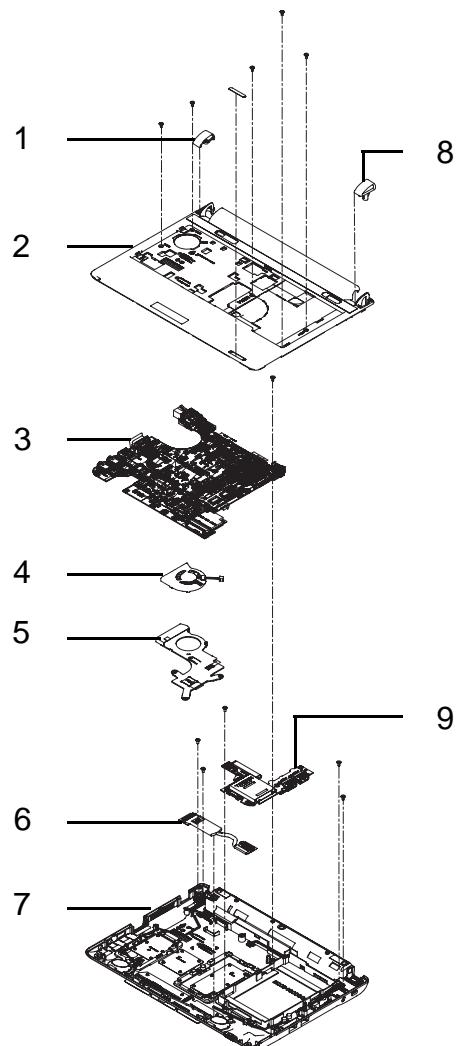
This chapter gives you the FRU (Field Replaceable Unit) listing in global configurations of eMachines eM250. Refer to this chapter whenever ordering for parts to repair or for RMA (Return Merchandise Authorization).

Please note that WHEN ORDERING FRU PARTS, you should check the most up-to-date information available on your regional web or channel. For whatever reasons a part number change is made, it will not be noted on the printed Service Guide. For ACER AUTHORIZED SERVICE PROVIDERS, your Acer office may have a DIFFERENT part number code from those given in the FRU list of this printed Service Guide. You MUST use the local FRU list provided by your regional Acer office to order FRU parts for repair and service of customer machines.

**NOTE:** To scrap or to return the defective parts, you should follow the local government ordinance or regulations on how to dispose it properly, or follow the rules set by your regional Acer office on how to return it.

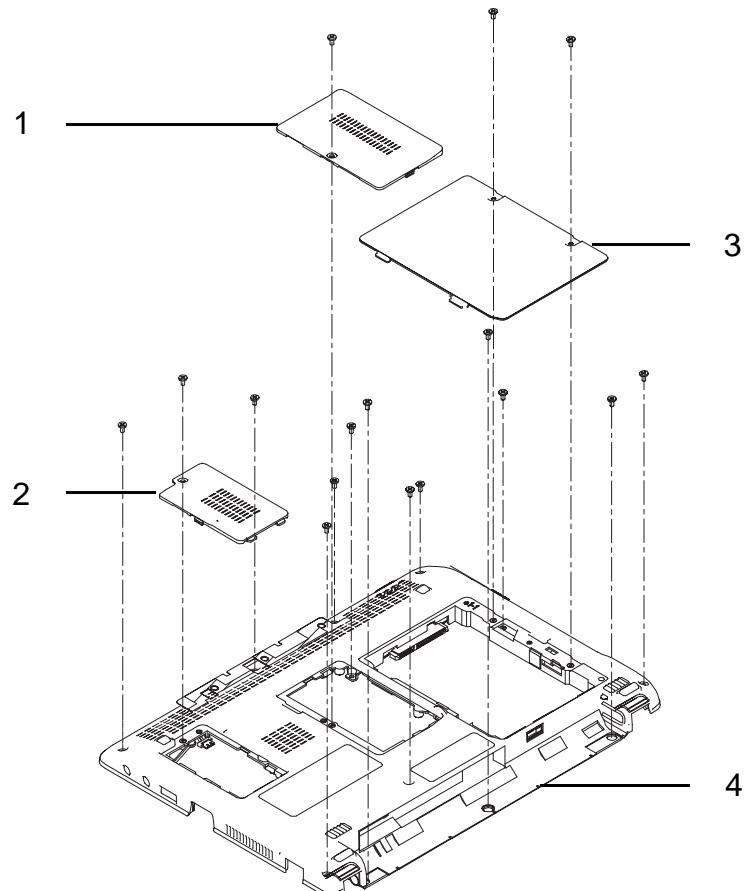
# eMachines eM250 Exploded Diagrams

## Main Assembly



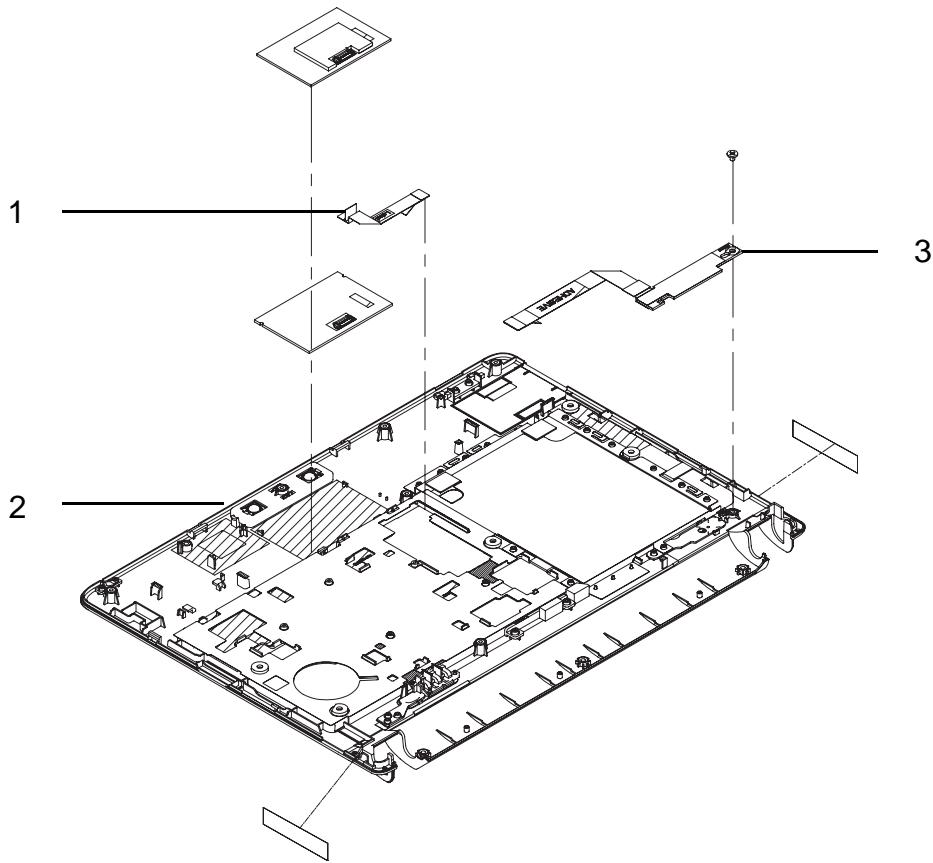
Item	Description	Part Number
1	Left Hinge Cover	42.S6802.002
2	Upper Cover	60.N9702.001
3	Mainboard	MB.S7206.001
4	CPU Fan	60.S6802.006
5	Thermal Module	
6	WLAN Card	NI.23600.048
7	Lower Cover	60.S6902.001
8	Right Hinge Cover	42.S6802.001
9	USB Board	55.S6802.002

## Rear Assembly



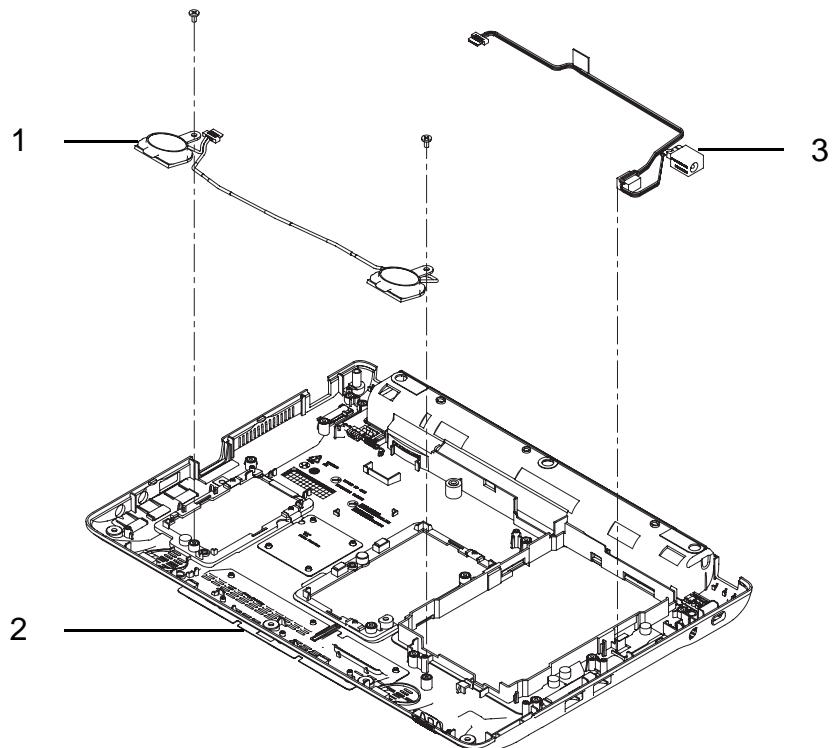
Item	Description	Part Number
1	Memory Door	42.S6802.003
2	3G Door	42.S6802.005
3	HDD Door	42.S6802.004
4	Lower Cover	60.S6902.001

## Upper Cover Assembly



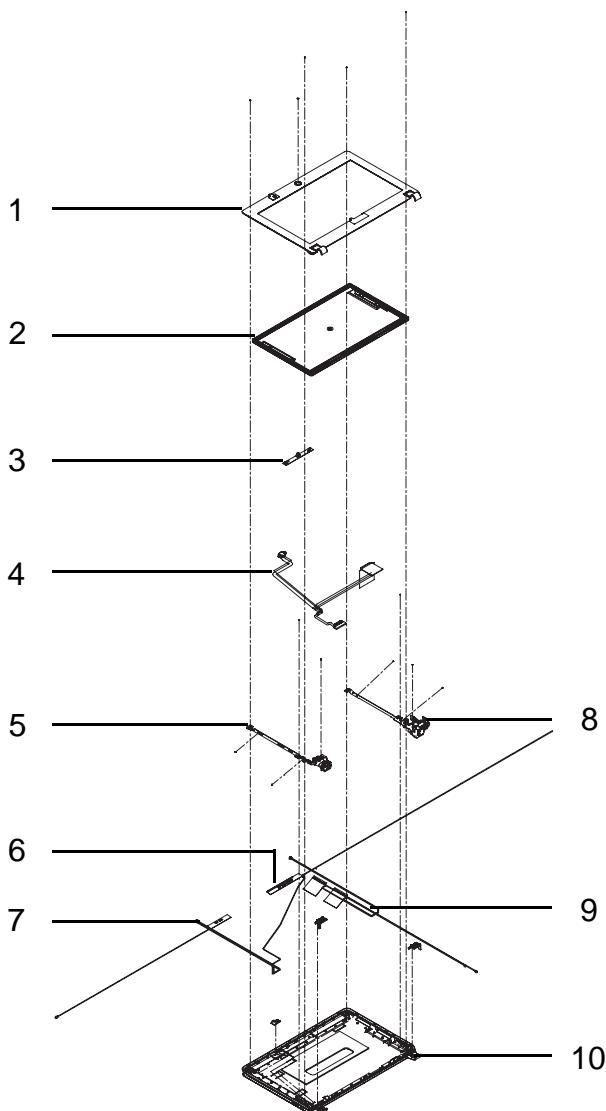
Item	Description	Part Number
1	TouchPad FFC	50.S6802.002
2	Upper Cover	60.N9702.001
3	Power Board	55.S6802.001

## Lower Cover Assembly



Item	Description	Part Number
1	Speaker Module	23.S6802.001
2	Lower Cover	60.S6902.001
3	AC Power Jack and Cable	50.S6802.003

## LCD Assembly



Item	Description	Part Number
1	LCD Bezel	60.N9702.004
2	LCD Panel	LK.10105.001
3	Camera Module	57.S6802.001
4	LVDS and Microphone Cable	50.S6702.001
5	Left LCD Bracket	60.S6802.005
6	Auxiliary 3G Antenna	50.S7202.002
7	Main 3G Antenna	50.S7202.002
8	Right LCD Bracket	60.S6802.005
9	WLAN Antennas	50.S7202.003
10	LCD Cover	60.N9702.003

## eMachines eM250 FRU List

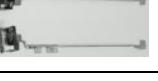
CATEGORY	AcerPN	Acer Description
Adapter		
	AP.03001.001	Adapter DELTA 30W 19V 1.7x5.5x11 Black ADP-30JH BA LF
	AP.03003.001	Adapter LITE-ON 30W 19V 1.7x5.5x11 Black PA-1300-04AC LF
	AP.0300A.001	Adapter HIPRO 30W 19V 1.7x5.5x11 Black HP-A0301R3 B1LF LF
Battery		
	BT.00303.008	Battery SANYO UM-2008A Li-Ion 3S1P SANYO 3 cell 2200mAh Main COMMON Marchles
	BT.00303.009	Battery SANYO UM-2008AW Li-Ion 3S1P SANYO 3 cell 2200mAh Main COMMON Macles / White
	BT.00304.001	Battery SONY UM-2008A Li-Ion 3S1P SONY 3 cell 2200mAh Main COMMON black
	BT.00304.002	Battery SONY UM-2008AW Li-Ion 3S1P SONY 3 cell 2200mAh Main COMMON white
	BT.00305.005	Battery PANASONIC UM-2008A Li-Ion 3S1P PANASONIC 3 cell 2200mAh Main COMMON Macles
	BT.00305.006	Battery PANASONIC UM-2008AW Li-Ion 3S1P PANASONIC 3 cell 2200mAh Main COMMON Macles / White
	BT.00307.001	Battery SIMPLIO UM-2008A Li-Ion 3S1P PANASONIC 3 cell 2200mAh Main COMMON Macles
	BT.00307.004	Battery SIMPLIO UM-2008AW Li-Ion 3S1P PANASONIC 3 cell 2200mAh Main COMMON Macles / White
	BT.00307.005	Battery SIMPLIO UM-2008AW Li-Ion 3S1P SAMSUNG 3 cell 2200mAh Main COMMON Macles / White
	BT.00307.006	Battery SIMPLIO UM-2008A Li-Ion 3S1P SAMSUNG 3 cell 2200mAh Main COMMON 2.2(F) , black , new fuse
	BT.00307.007	Battery SIMPLIO UM-2008AW Li-Ion 3S1P SAMSUNG 3 cell 2200mAh Main COMMON 2.2 (F), white, new fuse(NEC)
Mainboard		
	MB.S6806.001	Mainboard Aspire one LF AOD250/945GSE/ICH7M/N270/Non 3G
	MB.S6806.002	Mainboard Aspire one LF AOD250/945GSE/ICH7M/N280/Non 3G
Board		
	BH.21100.004	Foxconn Bluetooth FOX BRM 2046 BT2.1
	55.S6802.001	POWER BOARD

CATEGORY	AcerPN	Acer Description
	55.S6802.002	IO BOARD
	NI.23600.048	Foxconn Wireless LAN Atheros HB63 BG (HM)
	NI.23600.053	Foxconn Wireless LAN Broadcom 4312H BG (HM)
	NI.23600.047	Foxconn Wireless LAN Atheros HB95 1x1 BG (HM)
	NI.23600.046	Foxconn Wireless LAN Atheros HB93 1x2 BGN (HM)
Cable		
	50.S6802.001	BLUE TOOTH CABLE
	50.S6802.002	T/P FFC
	50.S6802.003	DC-IN CABLE-30W
	50.S6802.004	IO BOARD CABLE
Case/Cover/Bracket Assembly		
	60.N9702.001	UPPER CASE ASSY FOR W/BT, INCL.TP & BT MYLAR - BLK - eMachines
	60.N9702.002	UPPER CASE ASSY FOR W/O BT, INCL.TP & BT MYLAR - BLK - eMachines
	60.S6902.001	LOWER CASE ASSY FOR W/3G F-BLK
	60.S6902.002	LOWER CASE ASSY FOR W/O 3G F-BLK
	42.S6802.001	UP HINGE CAP-R
	42.S6802.002	UP HINGE CAP-L
	42.S6802.003	RAM DOOR-BLACK

CATEGORY	AcerPN	Acer Description
	42.S6802.004	HDD DOOR-BLACK
	42.S6802.005	MINI CARD DOOR-BLACK
	42.S6802.006	XD DUMMY CARD-BLACK
HDD/Hard Disk Drive		
	KH.16001.034	HDD SEAGATE 2.5" 5400rpm 160GB ST9160310AS Crockett SATA LF F/W:0303
	KH.16001.042	HDD SEAGATE 2.5" 5400rpm 160GB ST9160314AS Wyatt SATA LF F/W:0001SDM1
	KH.16004.006	HDD TOSHIBA 2.5" 5400rpm 160GB MK1655GSX Libra SATA LF F/W: FG011J
	KH.16007.019	HDD HGST 2.5" 5400rpm 160GB HTS543216L9A300 Falcon-B SATA LF F/W:C40C
	KH.16007.025	HDD HGST 2.5" 5400rpm 160GB Falcon B HTS543216L9SA00 SATA LF F/W:C40C
	KH.16007.026	HDD HGST 2.5" 5400rpm 160GB HTS545016B9A300 Panther B SATA LF F/W:C60F Disk imbalance criteria = 0.014g-cm
	KH.16008.022	HDD WD 2.5" 5400rpm 160GB WD1600BEVT-22ZCT0 ML160 SATA LF F/W:11.01A11
	KH.16008.027	HDD WD 2.5" 5400rpm 160GB WD1600BEVT-22A23T0 , WD, ML320S SATA 8MB LF F/W:01.01A01
	KH.25001.016	HDD SEAGATE 2.5" 5400rpm 250GB ST9250315AS Wyatt SATA LF F/W:0001SDM1
	KH.25004.003	HDD TOSHIBA 2.5" 5400rpm 250GB MK2555GSX Libra SATA LF F/W:FG001J
	KH.25007.015	HDD HGST 2.5" 5400rpm 250GB HTS545025B9A300 Panther B SATA LF F/W:C60F
	KH.25007.016	HDD HGST 2.5" 5400rpm 250GB HTS545025B9A300 Panther B SATA LF F/W:C60F Disk imbalance criteria = 0.014g-cm
	KH.25008.021	HDD WD 2.5" 5400rpm 250GB WD2500BEVT-22ZCT0 ML160 SATA LF F/W:11.01A11
	KH.25008.025	HDD WD 2.5" 5400rpm 250GB WD2500BEVT-22A23T0, WD, ML320S SATA 8MB LF F/W:01.01A01.
	33.S6802.001	HDD BRACKET

CATEGORY	AcerPN	Acer Description
Keyboard		
	KB.INT00.513	Keyboard 8KB-FV1 Black Macles Internal Standard 84KS Black US International
	KB.INT00.544	Keyboard 8KB-FV1 Black Macles Internal Standard 84KS Black Arabic
	KB.INT00.543	Keyboard 8KB-FV1 Black Macles Internal Standard 85KS Black Belgium
	KB.INT00.542	Keyboard 8KB-FV1 Black Macles Internal Standard 85KS Black Brazilian Portuguese
	KB.INT00.541	Keyboard 8KB-FV1 Black Macles Internal Standard 85KS Black Canadian French
	KB.INT00.540	Keyboard 8KB-FV1 Black Macles Internal Standard 84KS Black Chinese
	KB.I0800.002	Keyboard 8KB-FV1 Black Macles Internal 8 Standard 85KS Black CZ/SK
	KB.INT00.538	Keyboard 8KB-FV1 Black Macles Internal Standard 85KS Black Danish
	KB.INT00.537	Keyboard 8KB-FV1 Black Macles Internal Standard 85KS Black Dutch
	KB.INT00.535	Keyboard 8KB-FV1 Black Macles Internal Standard 85KS Black French
	KB.INT00.534	Keyboard 8KB-FV1 Black Macles Internal Standard 85KS Black German
	KB.INT00.533	Keyboard 8KB-FV1 Black Macles Internal Standard 84KS Black Greek
	KB.INT00.532	Keyboard 8KB-FV1 Black Macles Internal Standard 85KS Black Hungarian
	KB.INT00.529	Keyboard 8KB-FV1 Black Macles Internal Standard 85KS Black Italian
	KB.INT00.528	Keyboard 8KB-FV1 Black Macles Internal Standard 84KS Black Korean
	KB.INT00.526	Keyboard 8KB-FV1 Black Macles Internal Standard 85KS Black Norwegian
	KB.INT00.524	Keyboard 8KB-FV1 Black Macles Internal Standard 85KS Black Portuguese
	KB.INT00.523	Keyboard 8KB-FV1 Black Macles Internal Standard 84KS Black Russian
	KB.INT00.522	Keyboard 8KB-FV1 Black Macles Internal Standard 85KS Black SLO/CRO
	KB.INT00.521	Keyboard 8KB-FV1 Black Macles Internal Standard 85KS Black Slovak
	KB.INT00.520	Keyboard 8KB-FV1 Black Macles Internal Standard 85KS Black Spanish
	KB.INT00.519	Keyboard 8KB-FV1 Black Macles Internal Standard 85KS Black Sweden
	KB.INT00.518	Keyboard 8KB-FV1 Black Macles Internal Standard 85KS Black Swiss/G
	KB.INT00.517	Keyboard 8KB-FV1 Black Macles Internal Standard 84KS Black Thailand

CATEGORY	AcerPN	Acer Description
	KB.INT00.516	Keyboard 8KB-FV1 Black Macles Internal Standard 85KS Black Turkish
	KB.INT00.515	Keyboard 8KB-FV1 Black Macles Internal Standard 85KS Black UK
	KB.INT00.514	Keyboard 8KB-FV1 Black Macles Internal Standard 84KS Black US International w/ Hebrew
	KB.INT00.548	Keyboard 8KB-FV1 Black Macles Internal Standard 88KS Black Japanese
	KB.INT00.545	Keyboard 8KB-FV1 Black Macles Internal Standard 85KS Black Nordic
	KB.I0800.004	Keyboard 8KB-FV1 Black Macles Internal 8 Standard 85KS Black FR/Arabic
	KB.INT00.546	Keyboard 8KB-FV1 Black Macles Internal Standard 85KS Black US w/ Canadian French
Memory		
	KN.5120B.02 6	Memory SAMSUNG SO-DIMM DDRII 667 512MB M470T6464QZ3-CE6 LF
	KN.5120G.02 4	Memory HYNIX SO-DIMM DDRII 667 512MB HYMP164S64CP6-Y5 LF 64*16 0.065um
	KN.1GB04.01 0	Memory MICRON SO-DIMM DDRII 667 1GB MT8HTF12864HDY-667G1 LF 64*16 0.065um
	KN.1GB09.01 0	Memory ELPIDA SO-DIMM DDRII 667 1GB EBE11UE6AES-6E-F LF 64*16 0.065um
	KN.1GB0B.01 6	Memory SAMSUNG SO-DIMM DDRII 667 1GB M470T2864QZ3-CE6 LF
	KN.1GB0B.02 7	Memory SAMSUNG SO-DIMM DDRII 667 1GB M470T2864EH3-CE6 LF 64*16 0.055um
	KN.1GB0G.02 2	Memory HYNIX SO-DIMM DDRII 667 1GB HMP112S6EFR6C-Y5 LF 64*16 0.055um
	KN.1GB03.02 5	Memory NANYA SO-DIMM DDRII 800 1GB NT1GT64UH8D0FN-AD LF 64*16 0.07um
	KN.1GB04.01 3	Memory MICRON SO-DIMM DDRII 800 1GB MT8HTF12864HDY-800G1 LF 64*16 0.065um
	KN.1GB07.00 3	Memory KINGSTON SO-DIMM DDRII 800 1GB ACR128X64D2S800C6 LF 128*8 0.065um
	KN.1GB09.01 3	Memory ELPIDA SO-DIMM DDRII 800 1GB EBE10UE8AFSA-8G-F LF 128*8 0.065um
	KN.1GB0B.03 3	Memory SAMSUNG SO-DIMM DDRII 800 1GB M470T2864EH3-CF7 LF 64*16 0.055um
	KN.1GB0F.00 6	Memory TRANSCEND SO-DIMM DDRII 800 1GB JM800QSU-1G LF 128*8 0.065um
	KN.1GB0G.01 6	Memory HYNIX SO-DIMM DDRII 800 1GB HYMP112S64CP6-S6 LF 64*16 0.065um
	KN.1GB0H.01 4	Memory UNIFOSA SO-DIMM DDRII 800 1GB GU331G0ALEPR612C6F1 LF 128*8 0.065um
	KN.2GB09.00 3	Memory ELPIDA SO-DIMM DDRII 667 2GB EBE21UE8AES-6E-F LF 128*8 0.065um
	KN.2GB0B.01 1	Memory SAMSUNG SO-DIMM DDRII 667 2GB M470T5663EH3-CE6 LF 128*8 0.055um

CATEGORY	AcerPN	Acer Description
	KN.2GB04.01 2	Memory MICRON SO-DIMM DDRII 800 2GB MT16HTF25664HY-800G1 LF 128*8 0.065um
	KN.2GB09.00 5	Memory ELPIDA SO-DIMM DDRII 800 2GB EBE21UE8AFSA-8G-F LF 128*8 0.065um
	KN.2GB0B.01 8	Memory SAMSUNG SO-DIMM DDRII 800 2GB M470T5663EH3-CF7 LF 128*8 0.055um
	KN.2GB0G.00 7	Memory HYNIX SO-DIMM DDRII 800 2GB HYMP125S64CP8-S6 LF 128*8 0.065um
LCD		
	6M.N9702.00 1	ASSY LED MODULE 10.1 IN. WSVGA Glare W/ ANTENNA, CCD, BLACK
	LK.10105.001	LED LCD AUO 10.1" WSVGA Glare B101AW03 V0 LF 200nit 8ms 500:1
	LK.10105.004	LED LCD AUO 10.1" WSVGA Glare B101AW03 V0 2A (3G) LF 200nit 8ms 500:1
	LK.10106.001	LED LCD SAMSUNG 10.1" WSVGA Glare LTN101NT02-A01 LF 200nit 16ms 400:1
	LK.10106.004	LED LCD SAMSUNG 10.1" WSVGA Glare LTN101NT02-A04 LF 200nit 16ms 400:1
	LK.10108.001	LED LCD LPL 10.1" WSVGA Glare LP101WSA-TLA1 LF 200nit 16ms 400:1
	LK.1010D.002	LED LCD CMO 10.1" WSVGA Glare N101L6-L02 C2 (3G) LF 200nit 10ms 650:1
	LK.1010N.001	LED LCD INNOLUX 10.1" WSVGA Glare BT101IW01 V1 LF 200nit 8ms 400:1
	60.N9702.003	LCD COVER IMR BLACK - eMachines
	60.N9702.004	LCD BEZEL BLACK - eMachines
	42.S6802.007	LCD HINGE COVER R-BLACK
	42.S6802.008	LCD HINGE COVER L-BLACK
	60.S6802.005	LCD BRACKET-R&L
	57.S6902.001	CAMERA MODULE-0.3M SLIM
	50.S6902.001	LCD CABLE-FOR SLIM CAMERA
	50.S6802.005	ANTENNA WLAN-MAIN
	50.S6802.006	ANTENNA WLAN-AUX

CATEGORY	AcerPN	Acer Description
Thermal Module		
	60.S6802.006	THERMAL MODULE
Speaker R & L		
	23.S6802.001	SPEAKER-R&L
Miscellaneous		
	47.S6802.002	WLAN MYLAR
	47.N9702.001	HINGE CAP MYLAR R - BLK eMachines
	47.N9702.002	HINGE CAP MYLAR L - BLK eMachines
	47.S6802.001	LCD SCREW PAD-BLACK

## Screw List

CATEGORY	Acer Description	Acer PN
Screw		
	SCREW M1.98D 4.0L K 4.6D 0.8T ZK	86.S6802.001
	SCREW M2D 2.5L K 6.5D ZK NL	86.S6802.002
	SCREW M1.98D 3.0L K 4.6D NI NL	86.S6802.003
	SCREW M3.0D 3.0L K 4.9D NI	86.S6802.004
	SCREW M2D 12L K 4.2D BNI NL	86.S6802.005
	SCREW M1.6D 3L K 3.1D ZK NL CR3	86.S6802.006

# Model Definition and Configuration

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# eMachines eM250 Series

## Model eM250-01G16

RO	Country	Acer Part No	Description	Memory 1	HDD 1(GB)
PA	USA	LU.N970 B.004	eM250-01G16i AOXPHeTUS1 UMACks 1*1G/160/6L2.2/5R/CBSD_bg_0.3D_GEk_FRB1LU	SO1GBII6	N160GB5 .4KS
PA	USA	LU.N970 B.003	eM250-01G16i AOXPHeTUS1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_FRB1LU	SO1GBII6	N160GB5 .4KS
EMEA	Czech	LX.N970 B.052	eM250-01G16i AOXPHeTCZ2 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_SK11	SO1GBII6	N160GB5 .4KS
AAP	Australia /New Zealand	LU.N970 B.001	eM250-01G16i AOXPHeTAU1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_ES61	SO1GBII6	N160GB5 .4KS
AAP	Singapore	LU.N970 B.002	eM250-01G16i AOXPHeTSG1 UMACks 1*1G/160/BT/3L2.2/5R/CBSD_bg_0.3D_GEk_ES61	SO1GBII6	N160GB5 .4KS
AAP	Singapore	LU.N970 D.009	eM250-01G16i SNW7ST32eTSG1 UMACks 1*1G/160/BT/6L2.2/5R/CBSD_bg_0.3D_GEk_ES61	SO1GBII6	N160GB5 .4KS
CHINA	China	LU.N970 C.001	eM250-01G16i LINPUSeCN1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_EN91new	SO1GBII6	N160GB5 .4KS
CHINA	China	LU.N970 1.001	eM250-01G16i W7HB32SCeTCN1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_SC11	SO1GBII6	N160GB5 .4KS
EMEA	Russia	LX.N970 B.034	eM250-01G16i AOXPHeTRU1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_RU11	SO1GBII6	N160GB5 .4KS
AAP	India	LU.N970 D.006	eM250-01G16i SNW7ST32INeTIN1 UMACks 1*1G/160/6L2.2/5R/CBSD_bg_0.3D_GEk_ES61	SO1GBII6	N160GB5 .4KS
AAP	India	LU.N970 D.004	eM250-01G16i SNW7ST32INeTIN1 UMACks 1*1G/160/6L2.2/5R/CBSD_bg_0.3D_GEk_ES61	SO1GBII6	N160GB5 .4KS
AAP	India	LU.N970 D.003	eM250-01G16i SNW7ST32INeTIN1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_ES61	SO1GBII6	N160GB5 .4KS
AAP	Australia /New Zealand	LU.N970 D.002	eM250-01G16i SNW7ST32eTAU1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_ES61	SO1GBII6	N160GB5 .4KS
EMEA	UK	LX.N970 B.033	eM250-01G16i AOXPHeTGB1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_EN11	SO1GBII6	N160GB5 .4KS
EMEA	UK	LX.N970 D.028	eM250-01G16i SNW7ST32eTGB1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_EN11	SO1GBII6	N160GB5 .4KS
EMEA	Denmark	LX.N970 B.008	eM250-01G16i AOXPHeTDK2 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_ENS1	SO1GBII6	N160GB5 .4KS
AAP	India	LX.N970 C.021	eM250-01G16i LINPUSeIN1 UMACks 1*1G/160/6L2.2/5R/CBSD_bg_0.3D_GEk_EN11	SO1GBII6	N160GB5 .4KS
EMEA	South Africa	LX.N970 C.025	eM250-01G16i LINPUSeZA2 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_EN12	SO1GBII6	N160GB5 .4KS
PA	Canada	LX.N970 B.062	eM250-01G16i AOXPHeTCA2 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_FR31	SO1GBII6	N160GB5 .4KS
AAP	India	LX.N970 C.024	eM250-01G16i LINPUSeIN1 UMACks 1*1G/160/6L2.6/5R/CBSD_bg_0.3D_GEk_EN11	SO1GBII6	N160GB5 .4KS
PA	USA	LX.N970 B.064	eM250-01G16i AOXPHeTUS1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_FRB1	SO1GBII6	N160GB5 .4KS
PA	USA	LX.N970 B.063	eM250-01G16i AOXPHeTUS1 UMACks 1*1G/160/6L2.2/5R/CBSD_bg_0.3D_GEk_FRB1	SO1GBII6	N160GB5 .4KS
PA	ACLA-Spanish	LX.N970 B.004	eM250-01G16i EM AOXPHeTEA1 UMACks 1*1G/160/3L2.2/5R/CB_bg_0.3D_GEk_ES51	SO1GBII6	N160GB5 .4KS

<b>RO</b>	<b>Country</b>	<b>Acer Part No</b>	<b>Description</b>	<b>Memory 1</b>	<b>HDD 1(GB)</b>
AAP	Philippines	LX.N970 C.009	eM250-01G16i LINPUSePH1 UMACks 1*1G/160/BT/6L2.2/5R/CBSD_bg_0.3D_GEk_EN11	SO1GBII6	N160GB5 .4KS
EMEA	France	LX.N970 B.012	eM250-01G16i AOXPHeTFR1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_FR21	SO1GBII6	N160GB5 .4KS
EMEA	Switzerland	LX.N970 D.036	eM250-01G16i SNW7ST32eTCH1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_IT41	SO1GBII6	N160GB5 .4KS
EMEA	Latvia	LX.N970 D.049	eM250-01G16i SNW7ST32eTLV1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_LT11	SO1GBII6	N160GB5 .4KS
EMEA	South Africa	LX.N970 8.012	eM250-01G16i EM W7ST32EMeTZA1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_ES81	SO1GBII6	N160GB5 .4KS
EMEA	Turkey	LX.N970 8.011	eM250-01G16i EM W7ST32EMeTTR1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_TR31	SO1GBII6	N160GB5 .4KS
EMEA	Middle East	LX.N970 8.010	eM250-01G16i EM W7ST32EMeTME6 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_ES61	SO1GBII6	N160GB5 .4KS
EMEA	Middle East	LX.N970 8.009	eM250-01G16i EM W7ST32EMeTME2 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_AR11	SO1GBII6	N160GB5 .4KS
EMEA	Middle East	LX.N970 8.008	eM250-01G16i EM W7ST32EMeTME2 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_ES61	SO1GBII6	N160GB5 .4KS
EMEA	Middle East	LX.N970 8.007	eM250-01G16i W7ST32EMeTME2 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_AR21	SO1GBII6	N160GB5 .4KS
EMEA	Middle East	LX.N970 8.006	eM250-01G16i EM W7ST32EMeTME9 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_ES81	SO1GBII6	N160GB5 .4KS
EMEA	Middle East	LX.N970 8.005	eM250-01G16i EM W7ST32EMeTME3 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_ES81	SO1GBII6	N160GB5 .4KS
EMEA	Algeria	LX.N970 8.004	eM250-01G16i EM W7ST32EMeTDZ1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_ES81	SO1GBII6	N160GB5 .4KS
EMEA	South Africa	LX.N970 8.003	eM250-01G16i EM W7ST32EMeTZA2 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_ES61	SO1GBII6	N160GB5 .4KS
EMEA	Middle East	LX.N970 8.002	eM250-01G16i EM W7ST32EMeTME4 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_ES61	SO1GBII6	N160GB5 .4KS
EMEA	Latvia	LX.N970 B.059	eM250-01G16i AOXPHeTLV1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_LT11	SO1GBII6	N160GB5 .4KS
AAP	India	LX.N970 C.018	eM250-01G16i LINPUSeIN1 UMACks 1*1G/160/BT/3L2.2/5R/CBSD_bg_0.3D_GEk_EN11	SO1GBII6	N160GB5 .4KS
AAP	India	LX.N970 C.017	eM250-01G16i LINPUSeIN1 UMACks 1*1G/160/BT/6L2.2/5R/CBSD_bg_0.3D_GEk_EN11	SO1GBII6	N160GB5 .4KS
PA	Canada	LX.N970 B.001	eM250-01G16i AOXPHeTCA2 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_FR31	SO1GBII6	N160GB5 .4KS
PA	ACLA-Spanish	LX.N970 B.058	eM250-01G16i EM AOXPHeTEA1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_ES51	SO1GBII6	N160GB5 .4KS
EMEA	Algeria	LX.N970 B.051	eM250-01G16i EM AOXPHeTDZ1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_ES81	SO1GBII6	N160GB5 .4KS
EMEA	Finland	LX.N970 B.050	eM250-01G16i AOXPHeTFI2 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_FI11	SO1GBII6	N160GB5 .4KS
EMEA	Eastern Europe	LX.N970 B.049	eM250-01G16i AOXPHeTEU4 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_FI11	SO1GBII6	N160GB5 .4KS
EMEA	Eastern Europe	LX.N970 B.048	eM250-01G16i AOXPHeTEU7 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_ES61	SO1GBII6	N160GB5 .4KS
EMEA	Italy	LX.N970 B.047	eM250-01G16i AOXPHeTIT1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_IT11	SO1GBII6	N160GB5 .4KS
EMEA	Middle East	LX.N970 B.046	eM250-01G16i EM AOXPHeTME4 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_ES61	SO1GBII6	N160GB5 .4KS

<b>RO</b>	<b>Country</b>	<b>Acer Part No</b>	<b>Description</b>	<b>Memory 1</b>	<b>HDD 1(GB)</b>
EMEA	Switzerl and	LX.N970 B.045	eM250-01G16i AOXPHeTCH1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_IT41	SO1GBII6	N160GB5 .4KS
EMEA	Middle East	LX.N970 B.044	eM250-01G16i EM AOXPHeTME2 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_ES61	SO1GBII6	N160GB5 .4KS
EMEA	Norway	LX.N970 B.043	eM250-01G16i AOXPHeTNO1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_NO11	SO1GBII6	N160GB5 .4KS
EMEA	Portugal	LX.N970 B.042	eM250-01G16i AOXPHeTPT1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_PT11	SO1GBII6	N160GB5 .4KS
EMEA	Holland	LX.N970 B.041	eM250-01G16i AOXPHeTNL1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_NL11	SO1GBII6	N160GB5 .4KS
EMEA	Ukraine	LX.N970 B.040	eM250-01G16i AOXPHeTUK1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_RU61	SO1GBII6	N160GB5 .4KS
EMEA	Middle East	LX.N970 B.039	eM250-01G16i EM AOXPHeTME6 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_ES61	SO1GBII6	N160GB5 .4KS
EMEA	Austria	LX.N970 B.038	eM250-01G16i AOXPHeTAT1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_DE61	SO1GBII6	N160GB5 .4KS
EMEA	Israel	LX.N970 B.037	eM250-01G16i AOXPHeTIL1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_HE11	SO1GBII6	N160GB5 .4KS
EMEA	South Africa	LX.N970 B.035	eM250-01G16i EM AOXPHeTZA1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_ES81	SO1GBII6	N160GB5 .4KS
EMEA	Spain	LX.N970 B.036	eM250-01G16i AOXPHeTES1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_ES51	SO1GBII6	N160GB5 .4KS
EMEA	Middle East	LX.N970 B.032	eM250-01G16i EM AOXPHeTME3 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_ES81	SO1GBII6	N160GB5 .4KS
EMEA	South Africa	LX.N970 B.031	eM250-01G16i EM AOXPHeTZA2 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_ES61	SO1GBII6	N160GB5 .4KS
EMEA	Serbia/ Macedonia	LX.N970 B.030	eM250-01G16i EM AOXPHeTCS1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_SL11	SO1GBII6	N160GB5 .4KS
EMEA	Eastern Europe	LX.N970 B.029	eM250-01G16i AOXPHeTEU3 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_RU21	SO1GBII6	N160GB5 .4KS
EMEA	Middle East	LX.N970 B.028	eM250-01G16i EM AOXPHeTME2 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_AR11	SO1GBII6	N160GB5 .4KS
EMEA	Hungary	LX.N970 B.027	eM250-01G16i AOXPHeTHU1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_HU11	SO1GBII6	N160GB5 .4KS
EMEA	Turkey	LX.N970 B.026	eM250-01G16i EM AOXPHeTTR1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_TR31	SO1GBII6	N160GB5 .4KS
EMEA	Eastern Europe	LX.N970 B.025	eM250-01G16i AOXPHeTEU5 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_PL71	SO1GBII6	N160GB5 .4KS
EMEA	Poland	LX.N970 B.024	eM250-01G16i AOXPHeTPL1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_PL11	SO1GBII6	N160GB5 .4KS
EMEA	Eastern Europe	LX.N970 B.023	eM250-01G16i AOXPHeTEU5 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_RO11	SO1GBII6	N160GB5 .4KS
EMEA	Belgium	LX.N970 B.021	eM250-01G16i AOXPHeTBE1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_NL11	SO1GBII6	N160GB5 .4KS
EMEA	Latvia	LX.N970 B.022	eM250-01G16i AOXPHeTLV1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_RU21	SO1GBII6	N160GB5 .4KS
EMEA	Middle East	LX.N970 B.020	eM250-01G16i EM AOXPHeTME9 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_ES81	SO1GBII6	N160GB5 .4KS
EMEA	Denmark	LX.N970 B.019	eM250-01G16i AOXPHeTDK1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_NO11	SO1GBII6	N160GB5 .4KS
EMEA	Middle East	LX.N970 B.018	eM250-01G16i EM AOXPHeTME2 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_AR21	SO1GBII6	N160GB5 .4KS

<b>RO</b>	<b>Country</b>	<b>Acer Part No</b>	<b>Description</b>	<b>Memory 1</b>	<b>HDD 1(GB)</b>
EMEA	Cyprus	LX.N970 B.017	eM250-01G16i AOXPHeTCY1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_ES61	SO1GBII6	N160GB5 .4KS
EMEA	Eastern Europe	LX.N970 B.015	eM250-01G16i AOXPHeTEU7 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_SL11	SO1GBII6	N160GB5 .4KS
EMEA	Luxembourg	LX.N970 B.016	eM250-01G16i AOXPHeTLU3 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_IT41	SO1GBII6	N160GB5 .4KS
EMEA	Eastern Europe	LX.N970 B.014	eM250-01G16i AOXPHeTEU7 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_ENQ1	SO1GBII6	N160GB5 .4KS
EMEA	Greece	LX.N970 B.013	eM250-01G16i AOXPHeTGR1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_EL31	SO1GBII6	N160GB5 .4KS
EMEA	Latvia	LX.N970 D.047	eM250-01G16i SNW7ST32eTLV1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_RU21	SO1GBII6	N160GB5 .4KS
EMEA	Eastern Europe	LX.N970 D.046	eM250-01G16i SNW7ST32eTEU4 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_SV21	SO1GBII6	N160GB5 .4KS
EMEA	Denmark	LX.N970 D.045	eM250-01G16i SNW7ST32eTDK1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_NO11	SO1GBII6	N160GB5 .4KS
EMEA	Hungary	LX.N970 D.044	eM250-01G16i SNW7ST32eTHU1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_HU11	SO1GBII6	N160GB5 .4KS
EMEA	Luxembourg	LX.N970 D.043	eM250-01G16i SNW7ST32eTLU3 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_IT41	SO1GBII6	N160GB5 .4KS
EMEA	Czech	LX.N970 D.042	eM250-01G16i SNW7ST32eTCZ2 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_SK11	SO1GBII6	N160GB5 .4KS
EMEA	Belgium	LX.N970 D.041	eM250-01G16i SNW7ST32eTBE1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_NL11	SO1GBII6	N160GB5 .4KS
EMEA	Italy	LX.N970 D.040	eM250-01G16i SNW7ST32eTIT1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_IT11	SO1GBII6	N160GB5 .4KS
EMEA	Eastern Europe	LX.N970 D.038	eM250-01G16i SNW7ST32eTEU7 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_SL11	SO1GBII6	N160GB5 .4KS
EMEA	Cyprus	LX.N970 D.039	eM250-01G16i SNW7ST32eTCY1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_ES61	SO1GBII6	N160GB5 .4KS
EMEA	Germany	LX.N970 D.037	eM250-01G16i SNW7ST32eTDE1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_DE11	SO1GBII6	N160GB5 .4KS
EMEA	Denmark	LX.N970 D.035	eM250-01G16i SNW7ST32eTDK2 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_ENS1	SO1GBII6	N160GB5 .4KS
EMEA	Austria	LX.N970 D.034	eM250-01G16i SNW7ST32eTAT1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_DE61	SO1GBII6	N160GB5 .4KS
EMEA	Portugal	LX.N970 D.033	eM250-01G16i SNW7ST32eTPT1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_PT11	SO1GBII6	N160GB5 .4KS
EMEA	Holland	LX.N970 D.032	eM250-01G16i SNW7ST32eTNL1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_NL11	SO1GBII6	N160GB5 .4KS
EMEA	Greece	LX.N970 D.031	eM250-01G16i SNW7ST32eTGR1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_EL31	SO1GBII6	N160GB5 .4KS
EMEA	Poland	LX.N970 D.030	eM250-01G16i SNW7ST32eTPL1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_PL11	SO1GBII6	N160GB5 .4KS
EMEA	Eastern Europe	LX.N970 D.029	eM250-01G16i SNW7ST32eTEU5 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_PL71	SO1GBII6	N160GB5 .4KS
EMEA	Spain	LX.N970 D.026	eM250-01G16i SNW7ST32eTES1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_ES51	SO1GBII6	N160GB5 .4KS
EMEA	Eastern Europe	LX.N970 D.027	eM250-01G16i SNW7ST32eTEU7 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_ENQ1	SO1GBII6	N160GB5 .4KS
EMEA	Eastern Europe	LX.N970 D.025	eM250-01G16i SNW7ST32eTEU5 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_RO11	SO1GBII6	N160GB5 .4KS

<b>RO</b>	<b>Country</b>	<b>Acer Part No</b>	<b>Description</b>	<b>Memory 1</b>	<b>HDD 1(GB)</b>
EMEA	France	LX.N970 D.024	eM250-01G16i SNW7ST32eTFR1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_FR21	SO1GBII6	N160GB5 .4KS
EMEA	Finland	LX.N970 D.023	eM250-01G16i SNW7ST32eTFI2 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_FI11	SO1GBII6	N160GB5 .4KS
EMEA	Israel	LX.N970 D.022	eM250-01G16i SNW7ST32eTIL1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_HE11	SO1GBII6	N160GB5 .4KS
EMEA	Norway	LX.N970 D.020	eM250-01G16i SNW7ST32eTNO1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_NO11	SO1GBII6	N160GB5 .4KS
EMEA	Sweden	LX.N970 D.021	eM250-01G16i SNW7ST32eTSE1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_FI11	SO1GBII6	N160GB5 .4KS
EMEA	Algeria	LX.N970 D.019	eM250-01G16i SNW7ST32EMeTDZ1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_ES81	SO1GBII6	N160GB5 .4KS
EMEA	South Africa	LX.N970 D.018	eM250-01G16i SNW7ST32EMeTZA2 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_ES61	SO1GBII6	N160GB5 .4KS
EMEA	Middle East	LX.N970 D.017	eM250-01G16i SNW7ST32EMeTME2 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_AR11	SO1GBII6	N160GB5 .4KS
EMEA	Middle East	LX.N970 D.016	eM250-01G16i SNW7ST32EMeTME9 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_ES81	SO1GBII6	N160GB5 .4KS
EMEA	Middle East	LX.N970 D.015	eM250-01G16i SNW7ST32EMeTME2 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_ES61	SO1GBII6	N160GB5 .4KS
EMEA	Middle East	LX.N970 D.014	eM250-01G16i SNW7ST32EMeTME4 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_ES61	SO1GBII6	N160GB5 .4KS
EMEA	Middle East	LX.N970 D.013	eM250-01G16i SNW7ST32EMeTME2 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_ARA1	SO1GBII6	N160GB5 .4KS
EMEA	Middle East	LX.N970 D.012	eM250-01G16i SNW7ST32EMeTME3 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_ES81	SO1GBII6	N160GB5 .4KS
EMEA	Turkey	LX.N970 D.011	eM250-01G16i SNW7ST32EMeTTR1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_TR31	SO1GBII6	N160GB5 .4KS
EMEA	Middle East	LX.N970 D.010	eM250-01G16i SNW7ST32EMeTME6 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_ES61	SO1GBII6	N160GB5 .4KS
EMEA	South Africa	LX.N970 D.009	eM250-01G16i SNW7ST32EMeTZA1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_ES81	SO1GBII6	N160GB5 .4KS
EMEA	Sweden	LX.N970 B.011	eM250-01G16i AOXPHeTSE1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_FI11	SO1GBII6	N160GB5 .4KS
EMEA	Germany	LX.N970 B.010	eM250-01G16i AOXPHeTDE1 UMACks 1*1G/160/BT/3L2.2/5R/CBSD_bg_0.3D_GEk_DE11	SO1GBII6	N160GB5 .4KS
EMEA	Germany	LX.N970 B.009	eM250-01G16i AOXPHeTDE1 UMACks 1*1G/160/3L2.2/5R/CBSD_bg_0.3D_GEk_DE11	SO1GBII6	N160GB5 .4KS
WW	WW	S2.N970 B.001	eM250-01G16i AOXPHeWW1 UMACks 1*1G/160/3L2.2/5R/CB_bg_0.3D_GEk_ES61	SO1GBII6	N160GB5 .4KS
WW	GCTWN	S2.N970 D.002	eM250-01G16i SNW7ST32eWW1 UMACks 1*1G/160/BT/3L2.2/5R/CB_bg_0.3D_GEk_ES61	SO1GBII6	N160GB5 .4KS
WW	WW	S2.N970 B.002	eM250-01G16i AOXPHeWW1 UMACks 1*1G/160/BT/3L2.2/5R/CB_bg_0.3D_GEk_ES61	SO1GBII6	N160GB5 .4KS
PA	Chile	LX.N970 B.007	eM250-01G16i EM AOXPHeTCL3 UMACks 1*1G/160/3L2.2/5R/CB_bg_0.3D_GEk_ES51	SO1GBII6	N160GB5 .4KS
PA	ACLA-Spanish	LX.N970 B.006	eM250-01G16i EM AOXPHeTEA3 UMACks 1*1G/160/3L2.2/5R/CB_bg_0.3D_GEk_ES51	SO1GBII6	N160GB5 .4KS
PA	ACLA-Spanish	LX.N970 B.005	eM250-01G16i EM AOXPHeTEA4 UMACks 1*1G/160/3L2.2/5R/CB_bg_0.3D_GEk_EN31	SO1GBII6	N160GB5 .4KS
PA	ACLA-Portuguese	LX.N970 B.003	eM250-01G16i EM AOXPHeTXC2 UMACks 1*1G/160/3L2.2/5R/CB_bg_0.3D_GEk_XC21	SO1GBII6	N160GB5 .4KS

RO	Country	Acer Part No	Description	Memory 1	HDD 1(GB)
PA	ACLA-Portuguese	LX.N970 B.002	eM250-01G16i EM AOXPHeTXC3 UMACks 1*1G/160/3L2.2/5R/CB_bg_0.3D_GEk_EN61	SO1GBII6	N160GB5 .4KS
PA	ACLA-Portuguese	LX.N970 C.006	eM250-01G16i LINPUSeXC2 UMACks 1*1G/160/3L2.2/5R/CB_bg_0.3D_GEk_EN63	SO1GBII6	N160GB5 .4KS
PA	Chile	LX.N970 C.005	eM250-01G16i LINPUSeCL3 UMACks 1*1G/160/3L2.2/5R/CB_bg_0.3D_GEk_ES54	SO1GBII6	N160GB5 .4KS
PA	ACLA-Spanish	LX.N970 C.004	eM250-01G16i LINPUSeEA4 UMACks 1*1G/160/3L2.2/5R/CB_bg_0.3D_GEk_EN61	SO1GBII6	N160GB5 .4KS
PA	ACLA-Spanish	LX.N970 C.003	eM250-01G16i LINPUSeEA3 UMACks 1*1G/160/3L2.2/5R/CB_bg_0.3D_GEk_EN64	SO1GBII6	N160GB5 .4KS
PA	ACLA-Spanish	LX.N970 C.002	eM250-01G16i LINPUSeEA1 UMACks 1*1G/160/3L2.2/5R/CB_bg_0.3D_GEk_ES51	SO1GBII6	N160GB5 .4KS
PA	ACLA-Portuguese	LX.N970 C.001	eM250-01G16i LINPUSeXC3 UMACks 1*1G/160/3L2.2/5R/CB_bg_0.3D_GEk_EN61	SO1GBII6	N160GB5 .4KS
WW	GCTWN	S2.N970 D.001	eM250-01G16i SNW7ST32eWW1 UMACks 1*1G/160/3L2.2/5R/CB_bg_0.3D_GEk_ES61	SO1GBII6	N160GB5 .4KS

## Model eM250-01G25i

RO	Country	Acer Part No	Description	Memory 1	HDD 1(GB)
AAP	India	LU.N970 D.008	eM250-01G25i SNW7ST32INeTIN1 UMACks 1*1G/250/6L2.2/5R/CBSD_bg_0.3D_GEk_ES61	SO1GBII6	N250GB5 .4KS
AAP	India	LU.N970 D.007	eM250-01G25i SNW7ST32INeTIN1 UMACks 1*1G/250/6L2.6/5R/CBSD_bg_0.3D_GEk_ES61	SO1GBII6	N250GB5 .4KS
AAP	India	LU.N970 D.005	eM250-01G25i SNW7ST32INeTIN1 UMACks 1*1G/250/3L2.2/5R/CBSD_bg_0.3D_GEk_ES61	SO1GBII6	N250GB5 .4KS
EMEA	Switzerland	LU.N970 D.001	eM250-01G25i SNW7ST32eTCH1 UMACks 1*1G/250/BT/6L2.2/5R/CBSD_bg_0.3D_GEk_IT41	SO1GBII6	N250GB5 .4KS
PA	USA	LX.N970 D.001	eM250-01G25i SNW7ST32eTUS1 UMACks 1*1G/250/3L2.2/5R/CB_bg_0.3D_GEk_FRB1	SO1GBII6	N250GB5 .4KS
PA	ACLA-Spanish	LX.N970 D.048	eM250-01G25i EM SNW7ST32EMeTEA1 UMACks 1*1G/250/3L2.2/5R/CBSD_bg_0.3D_GEk_ES51	SO1GBII6	N250GB5 .4KS
EMEA	France	LX.N970 D.008	eM250-01G25i SNW7ST32eTFR1 UMACks 1*1G/250/3L2.2/5R/CBSD_bg_0.3D_GEk_FR21	SO1GBII6	N250GB5 .4KS
PA	ACLA-Spanish	LX.N970 D.007	eM250-01G25i EM SNW7ST32EMeTEA1 UMACks 1*1G/250/6L2.2/5R/CBSD_bg_0.3D_GEk_ES51	SO1GBII6	N250GB5 .4KS
PA	Chile	LX.N970 D.006	eM250-01G25i EM SNW7ST32EMeTCL3 UMACks 1*1G/250/6L2.2/5R/CBSD_bg_0.3D_GEk_ES51	SO1GBII6	N250GB5 .4KS
PA	ACLA-Spanish	LX.N970 D.005	eM250-01G25i EM SNW7ST32EMeTEA4 UMACks 1*1G/250/6L2.2/5R/CBSD_bg_0.3D_GEk_EN31	SO1GBII6	N250GB5 .4KS
PA	ACLA-Spanish	LX.N970 D.004	eM250-01G25i EM SNW7ST32EMeTEA3 UMACks 1*1G/250/6L2.2/5R/CBSD_bg_0.3D_GEk_ES51	SO1GBII6	N250GB5 .4KS
PA	ACLA-Portuguese	LX.N970 D.003	eM250-01G25i EM SNW7ST32EMeTXC3 UMACks 1*1G/250/6L2.2/5R/CBSD_bg_0.3D_GEk_EN61	SO1GBII6	N250GB5 .4KS
PA	ACLA-Portuguese	LX.N970 D.002	eM250-01G25i EM SNW7ST32EMeTXC2 UMACks 1*1G/250/6L2.2/5R/CBSD_bg_0.3D_GEk_XC21	SO1GBII6	N250GB5 .4KS

## Model eM250-02G16i

RO	Country	Acer Part No	Description	Memory 1	HDD 1(GB)
AAP	India	LX.N970 C.023	eM250-02G16i LINPUSeIN1 UMACks 1*2G/160/ 6L2.6/5R/CBSD_bg_0.3D_GEk_EN11	SO2GBII6	N160GB5 .4KS
AAP	India	LX.N970 C.022	eM250-02G16i LINPUSeIN1 UMACks 1*2G/160/ 6L2.2/5R/CBSD_bg_0.3D_GEk_EN11	SO2GBII6	N160GB5 .4KS
AAP	India	LX.N970 C.020	eM250-02G16i LINPUSeIN1 UMACks 1*2G/160/ BT/6L2.6/5R/CBSD_bg_0.3D_GEk_EN11	SO2GBII6	N160GB5 .4KS
AAP	India	LX.N970 C.019	eM250-02G16i LINPUSeIN1 UMACks 1*2G/160/ BT/6L2.2/5R/CBSD_bg_0.3D_GEk_EN11	SO2GBII6	N160GB5 .4KS
PA	ACLA-Portuguese	LX.N970 C.016	eM250-02G16i LINPUSeXC2 UMACks 1*2G/160/ 3L2.2/5R/CBSD_bg_0.3D_GEk_EN63	SO2GBII6	N160GB5 .4KS
PA	Chile	LX.N970 C.015	eM250-02G16i LINPUSeCL3 UMACks 1*2G/160/ 3L2.2/5R/CBSD_bg_0.3D_GEk_EN61	SO2GBII6	N160GB5 .4KS
PA	ACLA-Spanish	LX.N970 C.014	eM250-02G16i LINPUSeEA4 UMACks 1*2G/160/ 3L2.2/5R/CBSD_bg_0.3D_GEk_EN61	SO2GBII6	N160GB5 .4KS
PA	ACLA-Spanish	LX.N970 C.012	eM250-02G16i LINPUSeEA1 UMACks 1*2G/160/ 3L2.2/5R/CBSD_bg_0.3D_GEk_EN61	SO2GBII6	N160GB5 .4KS
PA	ACLA-Spanish	LX.N970 C.013	eM250-02G16i LINPUSeEA3 UMACks 1*2G/160/ 3L2.2/5R/CBSD_bg_0.3D_GEk_EN64	SO2GBII6	N160GB5 .4KS
PA	ACLA-Portuguese	LX.N970 C.011	eM250-02G16i LINPUSeXC3 UMACks 1*2G/160/ 3L2.2/5R/CBSD_bg_0.3D_GEk_EN61	SO2GBII6	N160GB5 .4KS

## Model eM250-02G25i

RO	Country	Acer Part No	Description	Memory 1	HDD 1(GB)
EME A	Ukraine	LX.N970 8.014	eM250-02G25i W7ST32RUeTUK1 UMACks 1*2G/ 250/BT/6L2.2/5R/CBSD_bg_0.3D_GEk_RU61	SO2GBII6	N250GB5 .4KS
PA	ACLA-Portuguese	LX.N970 8.013	eM250-02G25i EM W7ST32EMeTXC2 UMACks 1*2G/250/6L2.2/5R/CBSD_bg_0.3D_GEk_XC21	SO2GBII6	N250GB5 .4KS
PA	ACLA-Spanish	LX.N970 8.001	eM250-02G25i EM W7ST32EMeTEA1 UMACks 1*2G/250/3L2.2/5R/CBSD_bg_0.3D_GEk_ES51	SO2GBII6	N250GB5 .4KS
PA	ACLA-Portuguese	LX.N970 C.008	eM250-02G25i LINPUSeXC2 UMACks 1*2G/250/ 6L2.2/5R/CBSD_bg_0.3D_GEk_EN63	SO2GBII6	N250GB5 .4KS
PA	ACLA-Portuguese	LX.N970 C.007	eM250-02G25i LINPUSeXC2 UMACks 1*2G/250/ 6L2.6/5R/CBSD_bg_0.3D_GEk_EN63	SO2GBII6	N250GB5 .4KS



# Test Compatible Components

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This computer's compatibility is tested and verified by Acer's internal testing department. All of its system functions are tested under Windows® 7 with backwards compatibility to Windows® XP.

Refer to the following lists for components, adapter cards, and peripherals which have passed these tests. Regarding configuration, combination and test procedures, please refer to the eMachines eM250 series Compatibility Test Report released by the Acer Mobile System Testing Department.

# Windows 7 Environment Test

Vendor	Type	Description	Item No.
3G			
	GTM380E	3G GTM380E	LC.21300.004
	UNDP-1	3G UNDP-1	LC.21300.005
Option	GTM382E	Option 3G GTM382EL	LC.21300.007
	GTM380E	3G GTM380E	LC.21300.004
	UNDP-1	3G UNDP-1	LC.21300.005
Option	GTM382E	Option 3G GTM382EL	LC.21300.007
	GTM380E	3G GTM380E	LC.21300.004
	UNDP-1	3G UNDP-1	LC.21300.005
Option	GTM382E	Option 3G GTM382EL	LC.21300.007
	GTM380E	3G GTM380E	LC.21300.004
	UNDP-1	3G UNDP-1	LC.21300.005
Option	GTM382E	Option 3G GTM382EL	LC.21300.007
Adapter			
DELTA	30W	Adapter DELTA 30W 19V 1.7x5.5x11 Black ADP-30JH BA LF	AP.03001.001
LITE-ON	30W	Adapter LITE-ON 30W 19V 1.7x5.5x11 Black PA-1300-04AC LF	AP.03003.001
HIPRO	30W	Adapter HIPRO 30W 19V 1.7x5.5x11 Black HP-A0301R3 B1LF LF	AP.0300A.001
Audio Codec			
Realtek	ALC272X	Realtek Audio Codec ALC272X	LZ.21000.045
Battery			
SANYO	3CELL2.2	Battery SANYO UM-2008A Li-Ion 3S1P SANYO 3 cell 2200mAh Main COMMON Macles	BT.00303.008
SANYO	3CELL2.2	Battery SANYO UM-2008AW Li-Ion 3S1P SANYO 3 cell 2200mAh Main COMMON Macles / White	BT.00303.009
SONY	3CELL2.2	Battery SONY UM-2008A Li-Ion 3S1P SONY 3 cell 2200mAh Main COMMON black	BT.00304.001
SONY	3CELL2.2	Battery SONY UM-2008AW Li-Ion 3S1P SONY 3 cell 2200mAh Main COMMON white	BT.00304.002
PANASONIC	3CELL2.2	Battery PANASONIC UM-2008A Li-Ion 3S1P PANASONIC 3 cell 2200mAh Main COMMON Macles	BT.00305.005
PANASONIC	3CELL2.2	Battery PANASONIC UM-2008AW Li-Ion 3S1P PANASONIC 3 cell 2200mAh Main COMMON Macles / White	BT.00305.006
SIMPLO	3CELL2.2	Battery SIMPLO UM-2008A Li-Ion 3S1P PANASONIC 3 cell 2200mAh Main COMMON Macles	BT.00307.001
SIMPLO	3CELL2.2	Battery SIMPLO UM-2008AW Li-Ion 3S1P PANASONIC 3 cell 2200mAh Main COMMON Macles / White	BT.00307.004

<b>Vendor</b>	<b>Type</b>	<b>Description</b>	<b>Item No.</b>
SIMPLO	3CELL2.2	Battery SIMPLO UM-2008A Li-Ion 3S1P SAMSUNG 3 cell 2200mAh Main COMMON 2.2(F), black, new fuse	BT.00307.006
SIMPLO	3CELL2.2	Battery SIMPLO UM-2008AW Li-Ion 3S1P SAMSUNG 3 cell 2200mAh Main COMMON 2.2 (F), white, new fuse (NEC)	BT.00307.007
SANYO	6CELL2.6	Battery SANYO UM-2008B Li-Ion 3S2P SANYO 6 cell 5200mAh Main COMMON Black	BT.00603.058
SANYO	6CELL2.6	Battery SANYO UM-2008BW Li-Ion 3S2P SANYO 6 cell 5200mAh Main COMMON white	BT.00603.059
SANYO	6CELL2.2	Battery SANYO UM-2008B Li-Ion 3S2P SANYO 6 cell 4400mAh Main COMMON Black, 2.2Ah (A)	BT.00603.067
SANYO	6CELL2.2	Battery SANYO UM-2008BW Li-Ion 3S2P SANYO 6 cell 4400mAh Main COMMON White, 2.2 Ah (A)	BT.00603.068
SONY	6CELL2.2	Battery SONY UM-2008B Li-Ion 3S2P SONY 6 cell 4400mAh Main COMMON black	BT.00604.031
SONY	6CELL2.2	Battery SONY UM-2008BW Li-Ion 3S2P SONY 6 cell 4400mAh Main COMMON white	BT.00604.032
SONY	6CELL2.6	Battery SONY UM-2008B Li-Ion 3S2P SONY 6 cell 5200mAh Main COMMON black	BT.00604.033
SONY	6CELL2.6	Battery SONY UM-2008BW Li-Ion 3S2P SONY 6 cell 5200mAh Main COMMON white	BT.00604.034
SIMPLO	6CELL2.2	Battery SIMPLO UM-2008A Li-Ion 3S2P PANASONIC 6 cell 4400mAh Main COMMON Macles	BT.00607.032
SIMPLO	6CELL2.2	Battery SIMPLO UM-2008A Li-Ion 3S2P SAMSUNG 6 cell 4400mAh Main COMMON Macles	BT.00607.033
SIMPLO	6CELL2.2	Battery SIMPLO UM-2008BW Li-Ion 3S2P PANASONIC 6 cell 4400mAh Main COMMON White color, PSS CG type	BT.00607.039
SIMPLO	6CELL2.2	Battery SIMPLO UM-2008BW Li-Ion 3S2P SAMSUNG 6 cell 4400mAh Main COMMON white color, F type	BT.00607.040
SIMPLO	6CELL2.6	Battery SIMPLO UM-2008B Li-Ion 3S2P SAMSUNG 6 cell 5200mAh Main COMMON Macles Black	BT.00607.042
SIMPLO	6CELL2.6	Battery SIMPLO UM-2008BW Li-Ion 3S2P SAMSUNG 6 cell 5200mAh Main COMMON Macles White	BT.00607.044
SIMPLO	6CELL2.6	Battery SIMPLO UM-2008B Li-Ion 3S2P LGC 6 cell 5200mAh Main COMMON Black, LGC 2.6 (B3)	BT.00607.055
SIMPLO	6CELL2.6	Battery SIMPLO UM-2008BW Li-Ion 3S2P LGC 6 cell 5200mAh Main COMMON White, LGC 2.6 (B3)	BT.00607.056
Bluetooth			
Foxconn	BT 2.0	Foxconn Bluetooth FOX_BRM_2.0 F/W 300	BT.21100.005

Vendor	Type	Description	Item No.
Camera			
Suyin	0.3M LDV	Suyin Camera Rosa	AM.21400.030
Liteon	0.3M LDV	Liteon Camera Lily	AM.21400.031
Card Reader			
	5 in 1-Build in	5 in 1-Build in MS, MS Pro, SD, SC, XD	CR.21500.013
CPU			
INTEL	ATMN270B	CPU Intel Atom N270 1.6G 512K 533 2.5W	KC.ANB01.270
INTEL	ATMN280B	CPU Intel Atom N280 BGA 1.66G 512K 667 2.5W C-0	KC.ANB01.280
HDD			
SEAGATE	N160GB5.4 KS	HDD SEAGATE 2.5" 5400rpm 160GB ST9160310AS Crockett SATA LF F/W:0303	KH.16001.034
TOSHIBA	N160GB5.4 KS	HDD TOSHIBA 2.5" 5400rpm 160GB MK1655GSX Libra SATA LF F/W: FG011J	KH.16004.006
HGST	N160GB5.4 KS	HDD HGST 2.5" 5400rpm 160GB HTS543216L9A300 Falcon-B SATA LF F/W:C40C	KH.16007.019
WD	N160GB5.4 KS	HDD WD 2.5" 5400rpm 160GB WD1600BEVT-22ZCTO ML160 SATA LF F/W:11.01A11	KH.16008.022
Keyboard			
None	8KB-FV1 Black	Keyboard 8KB-FV1 Black Macles Standard	KB.00000.021
LAN			
Atheros	AR8114	Atheros AR8114 AR8114	NI.22400.040
LCD			
AUO	NLED10.1 WSVGAG	LED LCD AUO 10.1" WSVGA Glare B101AW03 V0 LF 200nit 8ms 500:1	LK.10105.001
SAMSUNG	NLED10.1 WSVGAG	LED LCD SAMSUNG 10.1" WSVGA Glare LTN101NT02-A01 LF 200nit 16ms 400:1	LK.10106.001
LPL	NLED10.1 WSVGAG	LED LCD LPL 10.1" WSVGA Glare LP101WSA-TLA1 LF 200nit 16ms 400:1	LK.10108.001
CMO	NLED10.1 WSVGAG	LED LCD CMO 10.1" WSVGA Glare N101L6-L02 LF 200nit 8ms 400:1	LK.1010D.001
MEM			
NANYA	SO1GBII6	Memory NANYA SO-DIMM DDRII 667 1GB NT1GT64UH8D0FN-3C LF 64*16 0.07um	KN.1GB03.026
MICRON	SO1GBII6	Memory MICRON SO-DIMM DDRII 667 1GB MT8HTF12864HDY-667G1 LF 64*16 0.065um	KN.1GB04.010
ELPIDA	SO1GBII6	Memory ELPIDA SO-DIMM DDRII 667 1GB EBE11UE6AES-6E-F LF 64*16 0.065um	KN.1GB09.010
SAMSUNG	SO1GBII6	Memory SAMSUNG SO-DIMM DDRII 667 1GB M470T2864EH3-CE6 LF 64*16 0.055um	KN.1GB0B.027
HYNIX	SO1GBII6	Memory HYNIX SO-DIMM DDRII 667 1GB HMP112S6EFR6C-Y5 LF 64*16 0.055um	KN.1GB0G.022

<b>Vendor</b>	<b>Type</b>	<b>Description</b>	<b>Item No.</b>
SAMSUNG	SO512MBII 6	Memory SAMSUNG SO-DIMM DDRII 667 512MB M470T6464QZ3-CE6 LF	KN.5120B.026
HYNIX	SO512MBII 6	Memory HYNIX SO-DIMM DDRII 667 512MB HYMP164S64CP6-Y5 LF 64*16 0.065um	KN.5120G.024
NANYA	SO1GBII6	Memory NANYA SO-DIMM DDRII 667 1GB NT1GT64UH8D0FN-3C LF 64*16 0.07um	KN.1GB03.026
MICRON	SO1GBII6	Memory MICRON SO-DIMM DDRII 667 1GB MT8HTF12864HDY-667G1 LF 64*16 0.065um	KN.1GB04.010
ELPIDA	SO1GBII6	Memory ELPIDA SO-DIMM DDRII 667 1GB EBE11UE6AES-6E-F LF 64*16 0.065um	KN.1GB09.010
SAMSUNG	SO1GBII6	Memory SAMSUNG SO-DIMM DDRII 667 1GB M470T2864EH3-CE6 LF 64*16 0.055um	KN.1GB0B.027
HYNIX	SO1GBII6	Memory HYNIX SO-DIMM DDRII 667 1GB HMP112S6EFR6C-Y5 LF 64*16 0.055um	KN.1GB0G.022
SAMSUNG	SO512MBII 6	Memory SAMSUNG SO-DIMM DDRII 667 512MB M470T6464QZ3-CE6 LF	KN.5120B.026
HYNIX	SO512MBII 6	Memory HYNIX SO-DIMM DDRII 667 512MB HYMP164S64CP6-Y5 LF 64*16 0.065um	KN.5120G.024
NANYA	SO1GBII6	Memory NANYA SO-DIMM DDRII 667 1GB NT1GT64UH8D0FN-3C LF 64*16 0.07um	KN.1GB03.026
MICRON	SO1GBII6	Memory MICRON SO-DIMM DDRII 667 1GB MT8HTF12864HDY-667G1 LF 64*16 0.065um	KN.1GB04.010
ELPIDA	SO1GBII6	Memory ELPIDA SO-DIMM DDRII 667 1GB EBE11UE6AES-6E-F LF 64*16 0.065um	KN.1GB09.010
SAMSUNG	SO1GBII6	Memory SAMSUNG SO-DIMM DDRII 667 1GB M470T2864EH3-CE6 LF 64*16 0.055um	KN.1GB0B.027
HYNIX	SO1GBII6	Memory HYNIX SO-DIMM DDRII 667 1GB HMP112S6EFR6C-Y5 LF 64*16 0.055um	KN.1GB0G.022
SAMSUNG	SO512MBII 6	Memory SAMSUNG SO-DIMM DDRII 667 512MB M470T6464QZ3-CE6 LF	KN.5120B.026
HYNIX	SO512MBII 6	Memory HYNIX SO-DIMM DDRII 667 512MB HYMP164S64CP6-Y5 LF 64*16 0.065um	KN.5120G.024
NANYA	SO1GBII6	Memory NANYA SO-DIMM DDRII 667 1GB NT1GT64UH8D0FN-3C LF 64*16 0.07um	KN.1GB03.026
MICRON	SO1GBII6	Memory MICRON SO-DIMM DDRII 667 1GB MT8HTF12864HDY-667G1 LF 64*16 0.065um	KN.1GB04.010
ELPIDA	SO1GBII6	Memory ELPIDA SO-DIMM DDRII 667 1GB EBE11UE6AES-6E-F LF 64*16 0.065um	KN.1GB09.010
SAMSUNG	SO1GBII6	Memory SAMSUNG SO-DIMM DDRII 667 1GB M470T2864EH3-CE6 LF 64*16 0.055um	KN.1GB0B.027
HYNIX	SO1GBII6	Memory HYNIX SO-DIMM DDRII 667 1GB HMP112S6EFR6C-Y5 LF 64*16 0.055um	KN.1GB0G.022
SAMSUNG	SO512MBII 6	Memory SAMSUNG SO-DIMM DDRII 667 512MB M470T6464QZ3-CE6 LF	KN.5120B.026
HYNIX	SO512MBII 6	Memory HYNIX SO-DIMM DDRII 667 512MB HYMP164S64CP6-Y5 LF 64*16 0.065um	KN.5120G.024

<b>Vendor</b>	<b>Type</b>	<b>Description</b>	<b>Item No.</b>
NANYA	SO1GBII6	Memory NANYA SO-DIMM DDRII 667 1GB NT1GT64UH8D0FN-3C LF 64*16 0.07um	KN.1GB03.026
MICRON	SO1GBII6	Memory MICRON SO-DIMM DDRII 667 1GB MT8HTF12864HDY-667G1 LF 64*16 0.065um	KN.1GB04.010
ELPIDA	SO1GBII6	Memory ELPIDA SO-DIMM DDRII 667 1GB EBE11UE6AES-6E-F LF 64*16 0.065um	KN.1GB09.010
SAMSUNG	SO1GBII6	Memory SAMSUNG SO-DIMM DDRII 667 1GB M470T2864EH3-CE6 LF 64*16 0.055um	KN.1GB0B.027
HYNIX	SO1GBII6	Memory HYNIX SO-DIMM DDRII 667 1GB HMP112S6EFR6C-Y5 LF 64*16 0.055um	KN.1GB0G.022
SAMSUNG	SO512MBII 6	Memory SAMSUNG SO-DIMM DDRII 667 512MB M470T6464QZ3-CE6 LF	KN.5120B.026
HYNIX	SO512MBII 6	Memory HYNIX SO-DIMM DDRII 667 512MB HYMP164S64CP6-Y5 LF 64*16 0.065um	KN.5120G.024
NANYA	SO1GBII6	Memory NANYA SO-DIMM DDRII 667 1GB NT1GT64UH8D0FN-3C LF 64*16 0.07um	KN.1GB03.026
MICRON	SO1GBII6	Memory MICRON SO-DIMM DDRII 667 1GB MT8HTF12864HDY-667G1 LF 64*16 0.065um	KN.1GB04.010
ELPIDA	SO1GBII6	Memory ELPIDA SO-DIMM DDRII 667 1GB EBE11UE6AES-6E-F LF 64*16 0.065um	KN.1GB09.010
SAMSUNG	SO1GBII6	Memory SAMSUNG SO-DIMM DDRII 667 1GB M470T2864EH3-CE6 LF 64*16 0.055um	KN.1GB0B.027
HYNIX	SO1GBII6	Memory HYNIX SO-DIMM DDRII 667 1GB HMP112S6EFR6C-Y5 LF 64*16 0.055um	KN.1GB0G.022
SAMSUNG	SO512MBII 6	Memory SAMSUNG SO-DIMM DDRII 667 512MB M470T6464QZ3-CE6 LF	KN.5120B.026
HYNIX	SO512MBII 6	Memory HYNIX SO-DIMM DDRII 667 512MB HYMP164S64CP6-Y5 LF 64*16 0.065um	KN.5120G.024
NANYA	SO1GBII6	Memory NANYA SO-DIMM DDRII 667 1GB NT1GT64UH8D0FN-3C LF 64*16 0.07um	KN.1GB03.026
MICRON	SO1GBII6	Memory MICRON SO-DIMM DDRII 667 1GB MT8HTF12864HDY-667G1 LF 64*16 0.065um	KN.1GB04.010
ELPIDA	SO1GBII6	Memory ELPIDA SO-DIMM DDRII 667 1GB EBE11UE6AES-6E-F LF 64*16 0.065um	KN.1GB09.010
SAMSUNG	SO1GBII6	Memory SAMSUNG SO-DIMM DDRII 667 1GB M470T2864EH3-CE6 LF 64*16 0.055um	KN.1GB0B.027
HYNIX	SO1GBII6	Memory HYNIX SO-DIMM DDRII 667 1GB HMP112S6EFR6C-Y5 LF 64*16 0.055um	KN.1GB0G.022
SAMSUNG	SO512MBII 6	Memory SAMSUNG SO-DIMM DDRII 667 512MB M470T6464QZ3-CE6 LF	KN.5120B.026
HYNIX	SO512MBII 6	Memory HYNIX SO-DIMM DDRII 667 512MB HYMP164S64CP6-Y5 LF 64*16 0.065um	KN.5120G.024
NANYA	SO1GBII6	Memory NANYA SO-DIMM DDRII 667 1GB NT1GT64UH8D0FN-3C LF 64*16 0.07um	KN.1GB03.026
MICRON	SO1GBII6	Memory MICRON SO-DIMM DDRII 667 1GB MT8HTF12864HDY-667G1 LF 64*16 0.065um	KN.1GB04.010

<b>Vendor</b>	<b>Type</b>	<b>Description</b>		<b>Item No.</b>
ELPIDA	SO1GBII6	Memory ELPIDA SO-DIMM DDRII 667 1GB EBE11UE6AES-6E-F LF 64*16 0.065um		KN.1GB09.010
SAMSUNG	SO1GBII6	Memory SAMSUNG SO-DIMM DDRII 667 1GB M470T2864EH3-CE6 LF 64*16 0.055um		KN.1GB0B.027
HYNIX	SO1GBII6	Memory HYNIX SO-DIMM DDRII 667 1GB HMP112S6EFR6C-Y5 LF 64*16 0.055um		KN.1GB0G.022
SAMSUNG	SO512MBII 6	Memory SAMSUNG SO-DIMM DDRII 667 512MB M470T6464QZ3-CE6 LF		KN.5120B.026
HYNIX	SO512MBII 6	Memory HYNIX SO-DIMM DDRII 667 512MB HYMP164S64CP6-Y5 LF 64*16 0.065um		KN.5120G.024
NB Chipset				
INTEL	945GSE	NB Chipset Intel CS QG82945GSE MM#897840		KI.94501.010
SB Chipset				
Intel	ICH7M	ICH7M		KI.22800.007
Software				
	McAfee	Antivirus application McAfee		SR.23900.001
VGA Chip				
None	UMA	UMA (Intel)		KI.23200.038
Wireless LAN				
Foxconn	3rd WiFi BG	Foxconn Wireless LAN Atheros HB63 BG (HM)		NI.23600.048



# Online Support Information

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This section describes online technical support services available to help you repair your Acer Systems.

If you are a distributor, dealer, ASP or TPM, please refer your technical queries to your local Acer branch office. Acer Branch Offices and Regional Business Units may access our website. However some information sources will require a user i.d. and password. These can be obtained directly from Acer CSD Taiwan.

Acer's Website offers you convenient and valuable support resources whenever you need them.

In the Technical Information section you can download information on all of Acer's Notebook, Desktop and Server models including:

- Service guides for all models
- User's manuals
- Bios updates
- Software utilities
- Spare parts lists
- TABs (Technical Announcement Bulletin)

For these purposes, we have included an Acrobat File to facilitate the problem-free downloading of our technical material.

Also contained on this website are:

- Detailed information on Acer's International Traveler's Warranty (ITW)
- Returned material authorization procedures
- An overview of all the support services we offer, accompanied by a list of telephone, fax and email contacts for all your technical queries.

We are always looking for ways to optimize and improve our services, so if you have any suggestions or comments, please do not hesitate to communicate these to us.



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